INSTRUCTIONS FOR

FLAT BED MACHINES

CLASSES 80000 and 81000

WITH

ILLUSTRATIONS

AND

PRICE LIST OF PARTS FOR REPAIR ONLY

CATALOG No. 38

UNION SPECIAL MACHINE COMPANY
CHICAGO, ILLINOIS

BRANCH OFFICES

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IMPORTANT NOTICE TO CUSTOMERS

The parts listed in this catalog are furnished at list prices for repairs only.

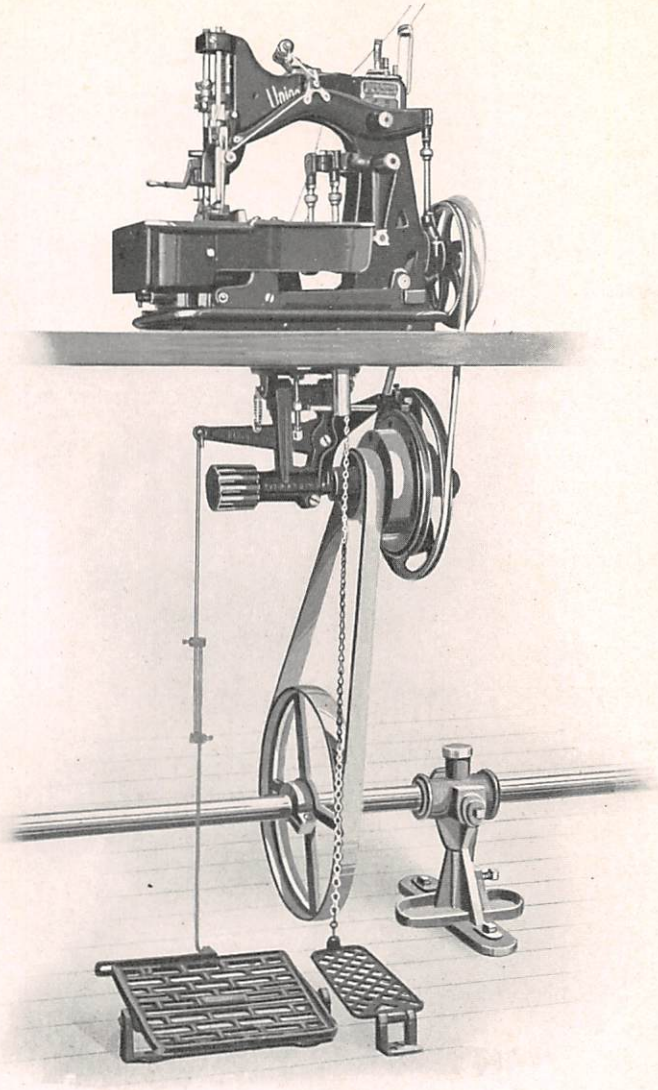
Attention is hereby called to the fact that many of said parts are subjects of patents, or enter into patented combinations, and that in furnishing these parts at list prices, we only license their use for repairing machines of our own make, in their original condition.

Notice is hereby given that the sale of such parts by the purchaser, or the use thereof for changing over machines from one style to another, or for any other than *bona fide* repair purposes, is an infringement, for which the seller or user will be liable to prosecution.

CONTENTS

The matter of this catalog relates only to machines in Classes 80000 and 81000, and cannot be applied to machines in other classes. The class number can be ascertained by reference to the name plate on the machine.

Power transmitter parts are listed in a separate catalog known as Catalog No. 29, copies of which will be supplied on request.



STYLE 81000A—READY TO OPERATE

The Method of Installing Other Machines Listed in this Catalog is the Same as for Style 81000A.

DESCRIPTION OF MACHINES

Our machines are separated into Classes, the number of which will be found upon the trade-mark plate attached to each machine. The Classes are divided into different Styles which are indicated by a letter used with the Class number and is referred to only in the catalog. It designates a machine having certain fittings for a particular operation. Machines in Class 80000 are extensively known as the "Antaeus" machine. Machines in Class 81000 are extensively known as the "Herakles" machine.

STYLES OF MACHINES IN CLASS 80000

Flat Bed Single Needle Machines

Style

80000A—For seaming bags, double thread stitch.

80000B—For seaming bags, single thread stitch.

80000C—For hemming bags, double thread stitch.

80000D—For hemming bags, single thread stitch.

STYLES OF MACHINES IN CLASS 81000

Flat Bed Single Interlock Machines

81000A—For seaming bags, with rotary take-up.

81000B—For seaming bags, without rotary take-up.

INSTALLATION

Sewing Machine Being thoroughly tested and accurately adjusted before leaving our factory, Union Special Machines are shipped in perfect working order. The illustration, page 5, gives a good idea of the sewing machine, power transmitter, and foot treadle, set up for operation.

Tables Any sewing machine table of ordinary construction may be used. Where an oblong hole has been cut in the table to accommodate another machine, it should be filled with a piece of thoroughly seasoned lumber of corresponding thickness. A tight fit should be made, re-enforced with nails or screws. The top of the table should be free from any unevenness. If a new table is to be made, a height of twenty-nine inches to the top of the table will be found best suited for operators of average size.

Speed The following table gives the speed recommended for each style when used for the operation specified in the description on page 6.

Style	Revolutions Per Minute	Style	Revolutions Per Minute
80000 A	1800	81000 A	1600
80000 B	1800	81000 B	1600
80000 C	1800		
80000 D	1800		

Pulleys Line shaft pulleys should be ordered of sufficient diameter to allow for the loss of speed from slippage of belt, which amounts to about six per cent. They are made with 1 3/16-inch and 1¼-inch bore and 1½-inch face; the diameters range in inch sizes from eight to fifteen inches, inclusive.

The transmitter has two pulleys. A loose pulley having two steps, 3¾ and 5¾ inches in diameter, and a brake pulley with one step, ten inches in diameter.

Belts A one-inch flat belt transmits power from the line shaft to the transmitter, and a 9/32-inch round belt from the transmitter to the sewing machine. The belts must be arranged so as to turn the sewing machine pulley in the direction indicated by the arrow in the diagrams on pages 11 and 12. If necessary to cross a belt, the round belt should be crossed.

Fastening Machine to Table An iron base plate with three points of table contact is placed under the machine, to counteract any unevenness. The distance from the edge of the table to the base plate varies, however, usually it is 1⅝ inches. Having located the base plate as desired, mark the table under the 7/16-inch hole, also under the slot provided for the foot lift chain to pass. Remove the base plate and bore a ⅞-inch hole at the former marking and remove the wood at the latter marking. Replace the base plate and fasten the machine upon it with the bed screw, correct the position of the base plate so that the bed screw passes centrally through the hole in the table. Carefully remove the machine and fasten the base plate to the table with 1¾-inch wood screws.

Caution Before permanently fastening the machine to the base plate, the surfaces must be carefully cleaned to prevent the main shaft from being sprung out of alignment, with consequent heating of the bearings.

Transmitter Use 1¼-inch wood screws to secure the transmitter to the table. The transmitter should be placed far enough back under the table to be out of the way of the operator's clothing, that is, the front edge should be about six inches back of the machine thumb screw. Special care must be observed to make sure that the groove of the transmitter brake pulley is directly under the groove of the machine pulley.

The transmitter must also be in proper alignment with the line shaft. A very good method is as follows: Place the pulley on the line shaft, but do not tighten it. Put in only the front right-hand screw to hold the transmitter temporarily. Swing the transmitter so that its shaft is in alignment with the line shaft. The correct position can be easily determined by sighting across the two pulleys. Insert a second screw diagonally opposite the one already in. Swing the transmitter frame slightly out of the vertical and toward the line shaft, by loosening the rear belt adjusting screw and tightening the front one, use wrench, No. 21388 B, and tighten the front screw securely. Measure the length of flat belt required to go around the line shaft pulley and the transmitter pulley. Join the two ends of the flat belt by a malleable iron belt lacing provided for that purpose. Drive the lacing into one end of the belt, placing it over the two pulleys so that the ends meet on the transmitter pulley, then drive the lacing into the opposite end. See that the lacing conforms to the curvature of the pulley and

that the teeth are well clinched. Turn the pulleys by hand to note if the belt runs true; this is the best test of proper alignment. To direct the belt to operate in the center of the crown upon the pulleys and to compensate for any slight error in alignment of the transmitter with respect to the line shaft, remove the left-hand rear screw and slightly turn the transmitter as required. In some instances, owing to the line shaft not being in proper alignment with the underside of the table, it will be necessary to insert a shim between either the right or left end of the transmitter frame and the table. Being now placed in proper relation with both the line shaft and the sewing machine, the transmitter should be permanently secured to the table by inserting screws in the remaining holes. If a screw has been removed for the purpose of correcting the position of the transmitter, it should be the last one replaced, otherwise it might have a tendency to draw the transmitter out of alignment. Tighten the line shaft pulley securely to the shaft.

To locate the holes in the table for the round belt, a ¼-inch pointed rod can be used to advantage by placing said rod in the groove of the machine pulley at the proper angle, which would if projected meet the groove in the transmitter brake pulley. When the angle is ascertained, drive the point of the rod into the bench only enough to hold it to act as a guide in the drilling of the hole to secure the proper angle of the hole through the table. A carpenter's bevel square may be used for the same purpose. The diameter of the holes should not exceed ⅞-inch. If the holes are slightly elongated, a wider range of adjustment can be obtained for the transmitter to take up the belt.

A guard is provided to be fastened to the underside of the work table in front of the transmitter. Its use is quite imperative as a protection for the operator from the rapidly moving belts.

The transmitter treadle should be so set that its center is directly under the needles. The front edge should be about one inch back from the front edge of the table, but this distance may be varied according to the operation for which the machine is to be used. The treadle rest should be set with the enclosed end to the right. The pitman rod may be adjusted in length so that the incline of the treadle will suit the operator's convenience; it need not necessarily hang in a vertical position.

Foot Lifter This is a device furnished for raising the presser foot. It consists of a small foot treadle, No. 422, connected by a chain with a lever attached to the rear of the sewing machine. The treadle should be placed to the right of the transmitter treadle.

Simplicity In isolated factories where operators have but scant opportunity to observe the working of any kind of machinery, they readily adapt themselves to Union Specials. Obviously, practice will increase the proficiency of the operator in threading and oiling the machine, and in handling the work.

To Set the Needle The needle has two grooves: A short groove extending from the shank to a point about ½-inch above the eye and a long groove extending from the shank to the eye.

Insert the needle as far up into the needle bar as it will go, with the long groove in front, so that the eye of the needle will be in line with the direction of the stitching. Then tighten the clamp nut with the wrench furnished for that purpose.

Oiling Sewing machines require careful oiling with a good quality of oil that will not gum by friction-heat or air-exposure. The so-called "stainless" oils are not recommended for our high-speed machines, as they do not have sufficient viscosity to serve the purpose.

It is very plain that lubricant should be used wherever one working part contacts with another.

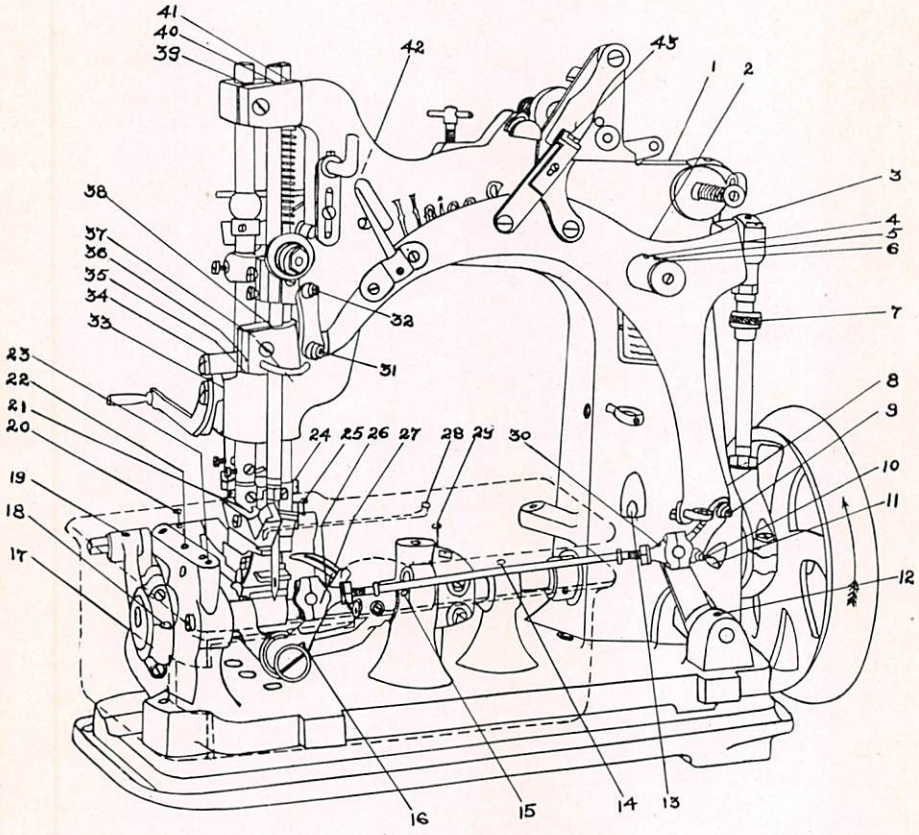
The left end of the needle lever is fitted with hollow link pins having ball valves. These are oiled by pressing the ball with the oil-can spout. The lower bearing of the sectional needle lever connection on the right-hand end of the machine is oiled through the tube. A liberal quantity of oil should be inserted therein through the valve opening.

When systematically performed, oiling can be done without possibility of missing any place, and in a surprisingly short time.

Frequent oiling is necessary, as lint quickly absorbs the oil. It is recommended that the sewing machine head be given a thorough oiling four times a day.

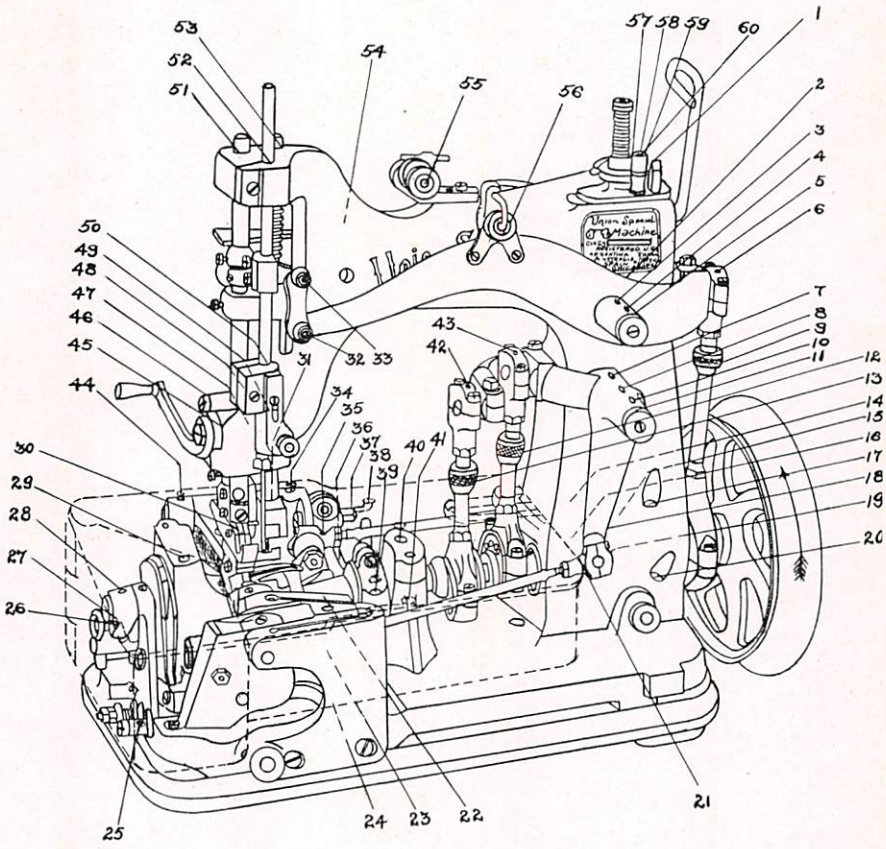
The power transmitter is lubricated with solid oil through the hollow main shaft from a single compression cup which should be screwed up about once a week. If the bearings run hot, the compression cup should be screwed up immediately. Refilling will not be required oftener than once in several months.

OILING DIAGRAM



SECTIONAL DIAGRAM—SHOWING OILING PLACES FOR MACHINES IN CLASS 80000

OILING DIAGRAM



SECTIONAL DIAGRAM—SHOWING OILING PLACES FOR STYLE 81000 A
The Method of Oiling Style 81000 B is approximately the same.

OPERATING

Cleaning After every oiling operation the overflowed oil and the accumulated lint should be carefully wiped up. The constant accumulation of lint and dirt makes it necessary for the operator to keep the machine as clean as possible, in order to prevent wear in the bearings.

Twice a week the cloth plate should be removed and the machine given a thorough cleaning. Lint and dirt should be removed from the oil holes, feed dog slots and looper grooves with a pin or needle.

To Remove the Cloth Plate Remove the needle to avoid blunting its point. Turn the pulley in the operative direction until the needle bar is at its lowest position. Remove the screws which hold the cloth plate to the base. Raise the presser foot. The cloth plate can now be removed by passing it slightly to the left and drawing it toward the operator.

Threading The method of threading should be carefully noted when the machine is taken from the shipping box. A thread hook, No. HA 118, is furnished for drawing the looper thread under the cloth plate.

The threads should neither be twisted nor cross each other. Each thread must be passed through the tension discs so that it is drawn against the tension post, but under no circumstances should it be guided completely around the post.

The illustrations, pages 15 and 16, show how the threads are taken from the spools and passed through the thread wires.

Diagram A shows the method of threading Styles 80000 A and 80000 C.

The method of threading Style 80000 B and 80000 D is the same as for Styles 80000 A and 80000 C with the elimination of the looper thread.

Diagram B shows the method of threading Style 81000 A. The method of threading Style 81000 B is the same as Style 81000 A, with the exception that the looper thread is guided through the eyelet positioned at the point marked K, in the diagram, then through the eyelet positioned at the point marked L, in the diagram, then between the tension discs, over the tension post, under the roller and through the looper.

Turning to Diagram A, it will be noted that the needle thread is guided from the thread stand to the eyelet marked A in the diagram, then between the discs and around the tension marked B, through eyelet marked C, between the nippers marked D, over the guide marked E, underneath its wire, under the hooked end of wire marked F, over wire marked G, under wire marked H, between the discs marked J, under the wire marked K and through the eye of the needle.

The looper thread is guided from the thread stand to eyelet marked L, in the diagram, between the discs and over the tension marked M, through the eyelet marked N, through the eyelet marked P, through the eyelet marked Q and through the looper.

Turning to Diagram B, it will be noted that the needle thread is guided from the thread stand to the thread guiding wire marked A, in the diagram, then through eyelet marked B, between the discs, around tension posts marked C, in front of thread roller marked D, under wire marked E, over roller marked F, back to roller marked G, then around roller marked H, and through the needle eye.

The looper thread is guided from the thread stand to the eyelet fastened in the foot lift lever marked J, in the diagram, then through the eyelet in the base of the frame, then in front of the pin, through the right-hand thread guide Cat. No. HS 103 A, the pull-off Cat. No. HS 105, the left-hand thread guide Cat. No. HS 103 A marked K, over the pin marked L, between the discs, and around the tension post marked M, through the thread guide marked N, through the thread guide marked P, and through the looper.

THREADING DIAGRAM

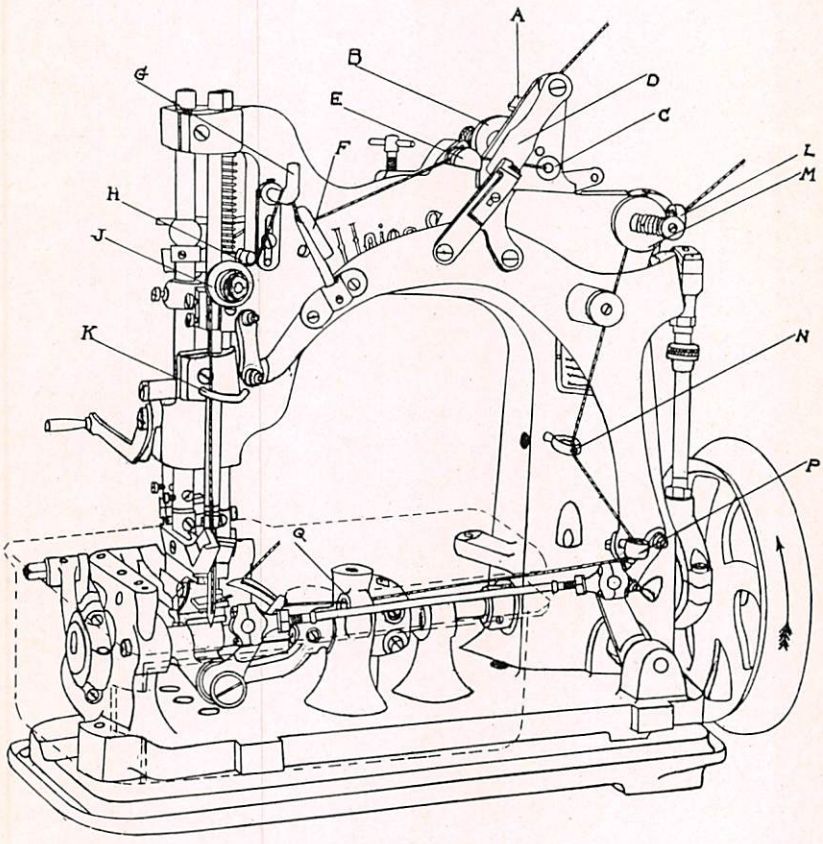


DIAGRAM A—THREADING

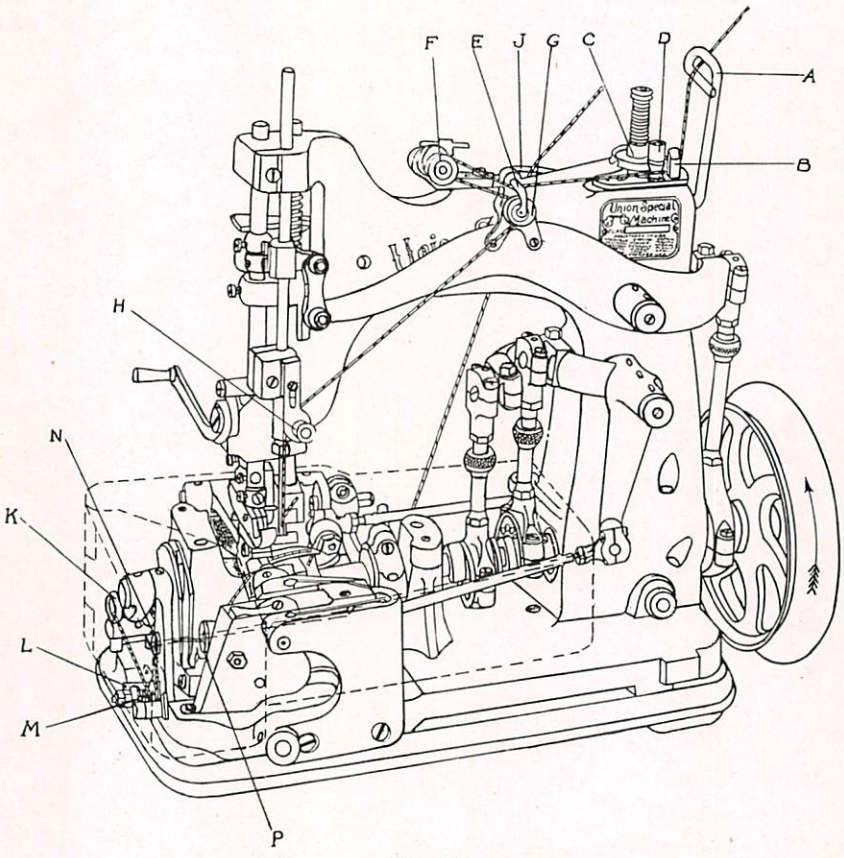


DIAGRAM B—THREADING

ADJUSTMENT, INTRODUCTORY

These instructions were formulated to meet average conditions. A slight deviation from them is permissible, however, the best results can be secured by following them.

Useful Hints When a machine fails to work satisfactorily, though apparently in good repair, delay might be avoided by bearing in mind the following suggestions:

(1) Note carefully whether the machine is threaded as directed in every respect, especially at the tensions, and remove any lint which may have accumulated.

(2) See that the required amount of tension is applied to each of the threads.

(3) Examine the needle to see whether it is straight with the long groove in front and inserted as far up in the needle bar as possible.

(4) Remove the needle and see whether it has become bent or blunted. The best possible test is to roll the shank on a perfectly flat surface and note if the point is concentric with the shank.

(5) Remove all the threads from the machine and carefully rethread it.

(6) Clean and oil the machine thoroughly. Try a new needle.

(7) The throat plate needle holes may have become roughened so causing breaking of the threads. This may be remedied by smoothing out the holes with a narrow strip of emery cloth.

(8) See that the machine feeds the work correctly.

(9) Examine thread eyelets and tension posts for grooves cut by passage of thread, causing breaking of thread.

(10) If the foregoing measures fail to relieve the difficulty it may be assumed that the machine needs a general re-adjustment.

Caution The machine should be turned by hand to detect binds or contacts before being operated by power.

Formation of the Double Thread Stitch In the formation of the stitch, the needle carries its thread through the fabric to a point below the throat plate. When ascending, slack thread is formed, which is forced out from the rear of the needle in the shape of a loop which the looper, with its thread, enters in passing from right to left, as shown in Figure 1. When the needle is above the material being sewed, the feed of the fabric forward takes place. The looper continues to the end of its forward stroke and rocks

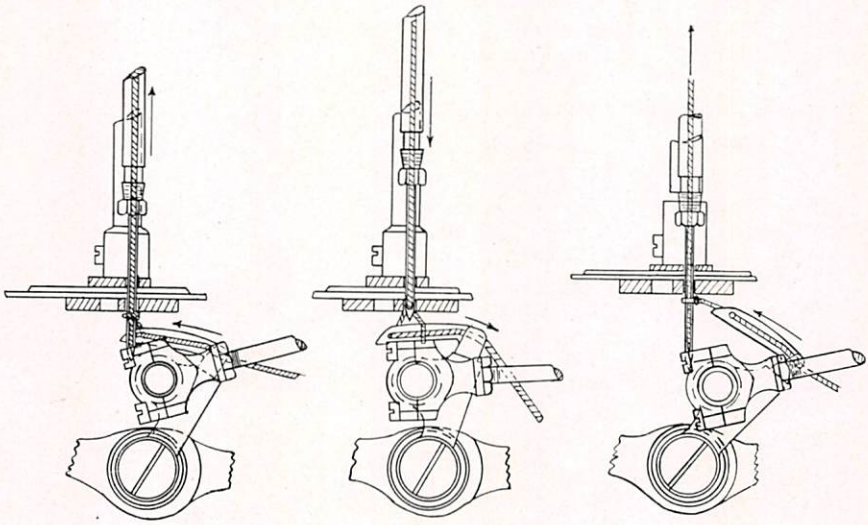


FIGURE 1 FIGURE 2 FIGURE 3

toward the front of the machine, said movement being called "needle avoiding movement," thus the looper moves in an elliptical path completely around the needle. On the return movement of the looper, it passes in front of the needle. The looper still continuing to retain the loop of needle thread in its movement to the right, the needle again descends and enters the triangular space formed on one side by the looper, another side by the looper thread extending from the eye in the point of the looper to the fabric and the remaining side formed by the needle thread extending from the fabric and around the looper, as shown in Figure 2. The looper continues its movement to the right, backs out of the needle thread loop, leaving the stitch around the needle which is then drawn up against the lower side of the fabric, as shown in Figure 3. The looper finally rocks toward the rear of the machine, completing its movement.

Formation of the Single Thread Stitch In the formation of the stitch, the needle carries its thread through the fabric to a point below the throat plate. When ascending, slack thread is formed, which is forced out from the rear of the needle in the shape of a loop, which the looper enters in passing from right to left, as shown in Figure 4. The needle again descending, carries its thread through this loop, as shown in Figure 5. The looper, continuing to return to the right, leaves the stitch on the needle, as shown

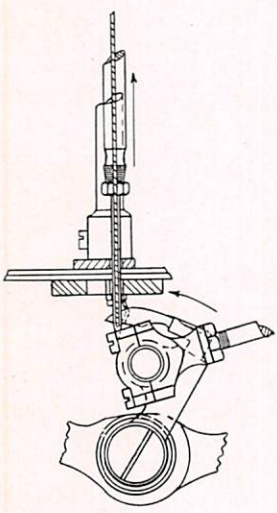


FIGURE 4

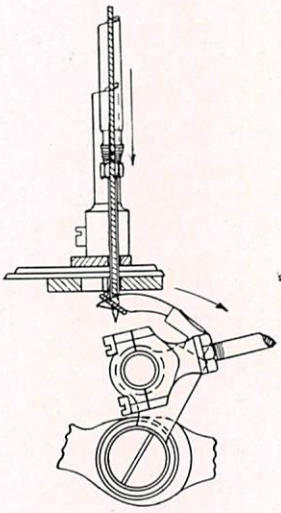


FIGURE 5

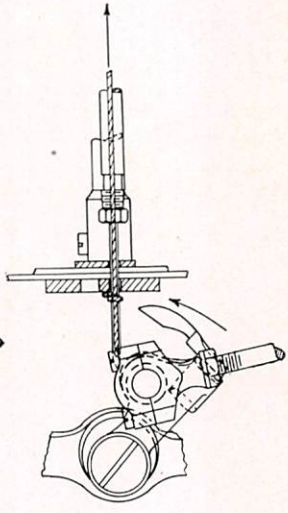


FIGURE 6

in Figure 6. The needle, again ascending, recedes from the stitch, which is tightened in the fabric by the action of the looper as it forms the next stitch.

Looper The position of the point of the looper with respect to the needle is important, that the looper may enter the loop formed in the needle thread at the proper interval of time.

With the needle bar in its lowest position, the distance between the point of the looper to the center of the needle should be 3/8-inch (10 m/m). This adjustment is obtained by turning the looper connection rod. To loosen nuts, use wrench, No. 21388, and turn them from the operator. When tightening the nuts, care should be taken that the ball joints do not bind.

When the looper moves to the left to take the needle loop, it should have free space as it passes the needle. Should it strike the needle, the result would be a broken needle and sometimes a broken looper. If it be set as far away as 1/32 inch from the needle, skipped stitches would result. The best adjustment for average work is a scant 1/100-inch space between the looper point and the back of the needle. A small piece of paper placed to the left of the needle as a background, will be of great assistance in making this adjustment. To change the position of the looper with respect to the back of the needle, loosen the two screws which secure the looper eccentric fork to the looper rock shaft. This permits the looper, with its rocker, to be moved to the required position.

When the looper moves to the right, it should pass close to the front of the needle to enable the needle, as it descends, to pass between the back of the looper and its thread. The position of the looper can be altered by using a looper eccentric of greater or less eccentricity, without destroying its correct adjustment with respect to the back of the needle.

Needle Bar Turn the pulley in the operative direction until the looper starts to move to the left and its point is even with the left side of the needle. Then, the needle bar should be positioned so that the entire eye appears 1/32 inch below the underside of the looper. To avoid a large variable loop, difficult for the looper to enter, the needle bar should not be set too low.

Needle Guard This member is attached to the feed bar. Its purpose is to force the needle into proper position if it glances toward the rear of the machine in passing through the fabric. It should be set so that its vertical face barely touches the back of the needle when it is at its farthest position toward the front of the machine. The screw hole is elongated to permit of this adjustment. It must be readjusted each time the length of stitch is altered to maintain the correct adjustment with respect to the back of the needle.

To Regulate Length of Stitch Attached to the left-hand end of the feed rocker will be found a stud connected to the feed rocker eccentric connection. It is by changing the position of this stud that the length of stitch can be altered. Lowering the stud lengthens the stitch, raising the stud shortens the stitch. It will be necessary to loosen the nut before the stitch can be altered.

Presser Feet Two presser feet are employed working independently of each other to provide a uniform pressure to the fabric. The right-hand presser foot is an auxiliary to the stitch forming mechanism, while the left presser foot provides the necessary pressure to feed properly the fabric.

The pressure applied to each presser foot is independently controlled. The flat spring on the upper rear side of the frame furnishes pressure for the left foot. The spiral spring furnishes pressure for the right foot.

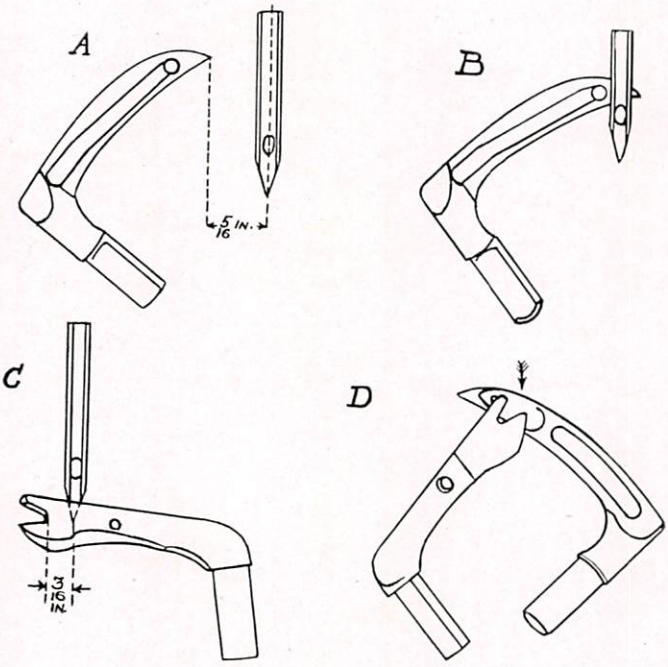
To increase the pressure for the left foot, turn the screw operating against the flat spring to the right; to decrease the pressure turn it to the left. To increase the pressure for the right foot, loosen the screw in the coiled spring support and force the support upward; to decrease the pressure, force the support downward. A slight adjustment upward or downward of the guiding fork is necessary after any change is made in the coiled spring support. The right foot should be adjusted so that its bottom will be approximately 1/32-inch higher than the bottom of the left foot.

Feed Dog In order to enable the machine to feed the fabric properly, it is important that the feed dog be set at the proper height above the throat plate. If the teeth of the feed dog do not rise high enough, imperfect feeding of the work will result. If they rise too high, imperfect feeding of the work will likewise result, because the teeth of the feed dog will remain in contact with the fabric after the motion of the feed dog has been reversed. The feed dog should be so set that the top of its teeth will rise about 1/8 inch above the surface of the throat plate.

While the teeth of the feed dog should be sufficiently sharp to feed the fabric properly, it is quite possible for them to be so highly sharpened as to cut the thread forming the stitches on the underside of the material. A small triangular piece of oil stone will serve to remove the over-sharp edges of the teeth which come in contact with the stitches. It should be applied separately to the teeth located in the rear of the needles. Another method is to apply a narrow strip of emery cloth to the top of each tooth. Avoid making a flat top on the teeth, which would have the same effect as the sharp edge, i. e., to cut the stitches.

Formation of Stitch In the formation of the stitch, the needle carries its thread through the fabric to a point below the throat plate. When ascending, slack thread is formed, which is forced out from the rear of the needle in the shape of a loop which the looper with its thread enters in passing from left to right. When the looper has reached the end of its stroke to the right the spreader rises and engages the thread at the rear of the looper and carries it to the left of the needle. The needle enters the loop of thread thus formed which is tightened in the fabric by the action of the looper as it forms the next stitch.

Looper The position of the point of the looper with respect to the needle is important that the looper may enter the loop in the needle thread at the proper interval of time. When the looper is at its farthest point to the left, the point of the looper should be 5/16



inch (8½ m/m) from the center of the needle, as shown in illustration A.

This adjustment is obtained by turning the looper connection rod. To loosen nuts use wrench, No. 21388, and turn them from the

operator. When tightening the nuts, care should be taken that the ball joints do not bind. When the looper moves to the right to take the needle loop, it should have free space as it passes the needle. Should it strike the needle, the result might be a broken needle and sometimes a broken looper. If it be set as far away as 1/32 inch from the needle, skipped stitches would result. The best adjustment for average work is a scant 1/100-inch space between the looper point and the back of the needle.

A small piece of white paper placed at the left of the needle as a background, will be of great assistance in making this adjustment.

The position of the looper with respect to the back of the needle can be altered to permit the use of large or small needles, by adjusting the looper carrier bracket. To accomplish the adjustment, loosen the two screws (Catalog No. 318), which will be found on the underside of the frame of the machine. To decrease the space between the back of the needle and the looper, force the rear end of the looper carrier bracket to the left. To increase the space, force the rear end of the looper carrier bracket to the right. After any adjustment is made, see that the two screws (Catalog No. 318) are tightened.

Needle Bar Turn the pulley in the operative direction until the looper starts to move to the right and its point is 3/64 inch (1 m/m) beyond the right-hand side of the needle. Then, the needle bar should be positioned that the entire eye appears below the underside of the looper, as shown in illustration B, page 22. To avoid a large variable loop, difficult for the looper to enter, the needle bar should not be set too low.

Spreader The spreader should be set so that it will pass the looper as closely as possible without striking, and so its point will pass through the center of the groove at the rear of the looper, as shown in illustration D, page 22. When the spreader has completed its stroke to the left, the center of the groove of the spreader should be 3/16 inch (5 m/m) away from the center of the needle, as shown in illustration C, page 22. This adjustment is made by turning the spreader connection rod. Loosen the nuts and turn them from the operator. After making the adjustment tighten the nuts, care being taken that the ball joints do not bind.

Needle Guard This member is attached to the feed bar. Its purpose is to force the needle into proper position if it glances toward the rear of the machine in passing through the fabric. The guard should be set so that its vertical face barely touches the back of the needle when it is at its farthest position toward the front of the machine. The screw hole is elongated to permit of this adjustment. It must be readjusted each time the length of stitch is altered to maintain the correct adjustment with respect to the back of the needle.

To Regulate the Length of Stitch Attached to the right-hand end of the feed rocker will be found a stud connected to the feed rocker eccentric connection. It is by changing the position of this stud that the length of stitch can be altered. Lowering the stud in the slot of the feed rocker lengthens the stitch. Raising the stud in the slot shortens the stitch. It will be necessary to loosen the nut before the stitch can be altered.

Thread Take-Up The thread take-up is attached in the end of the spreader carrier shaft. Its purpose is to engage the looper thread and carry it to the left of the needle so as to prevent the looper thread from interfering with the needle loop as it is formed, and also to hold the looper thread rigid enough to permit the spreader to enter the loop formed on the back of the looper. The thread take-up should be set as high as possible without striking the feed dog or the throat plate and with its point to the right. It should also have free space as it passes along the back of the looper.

Take-Up and Cast-Off Wire Near the end of the main shaft of machine Style 81000 A is placed an intermittent controlling device for the looper thread. Its action upon the thread can be readily observed by properly threading the machine and holding the thread taut by the hand, turning the pulley in its operative direction.

(1) It takes up the slack in the looper thread while the spreader is returning to the right.

(2) It holds the looper thread taut while the spreader is entering the loop formed in the back of the looper.

The cast-off wire should be set so as to release the thread from the take-up when the point of the looper is even with the left-hand side of the needle. If it holds the thread too long, the cast-off wire should

be moved toward the operator, if it does not hold the thread long enough, the cast-off wire should be moved from the operator.

The adjustment is made by loosening the screw on the side of the cast-off wire and moving it forward or backward by means of the adjusting screw in the front end of the cast-off wire.

After any adjustment has been made, be sure that the screw is tightened.

Thread Pull-Off The thread pull-off for the looper thread is actuated from the end of the main shaft. Its purpose is to draw sufficient thread from the spool to complete the stitch. Lowering the pull-off increases the amount of thread drawn from the spool. Raising the pull-off acts the reverse.

Presser Feet The method of adjusting the presser feet is the same as for Class 80000 machines (see page 21).

Edge Guide In addition to its duty as an edge guide, it serves to support a tongue. The tongue should be set sufficiently forward to facilitate forming the chain of stitches.

Feed Dog The method of adjusting the feed dog is the same as for Class 80000 machines (see page 21).

ILLUSTRATIONS AND PRICE LIST OF PARTS FOR REPAIRS ONLY

Plates Grouped according to scale will be found illustrations of parts similar in appearance and, to some extent, component parts that go together in the same subdivisions of the mechanism.

Price List of Parts Turning from the plates to the price list, the description of each part and its principal uses will be found to give all necessary information. Where a part is used on all machines, no specific use is mentioned in the description. The screw or screws belonging to each part are repeated after its description. If two or more parts in a group have the same general description and use the same screws, the screws are only specified after the last part in the group.

(—) A dash in the "Plate number" column of the price list indicates the absence of an illustration.

(‡) A double dagger in the "Number to order by" column indicates that the component parts cannot be furnished separately.

(†) A single dagger in the "Number to order by" column indicates that the part belongs to an obsolete type of machine.

Ordering Goods A large number of parts have their full numbers stamped upon them. Other parts, difficult to distinguish, are marked instead with identification letters.

If customers furnish the number stamped on a piece, errors will be avoided and we shall be enabled promptly to duplicate the desired part. If only an identification letter is furnished, it should be accompanied with a general description of the part.

All part numbers represent the same part regardless of the catalog in which they appear.

All supplies, including oil, belting, belt hooks, malleable iron belt lacings, taps, reamers, screw drivers and powdered oilstone, will be promptly furnished.

Terms Attention is directed to our established practice. Prices on all parts and supplies are strictly net. Being shipped in perfect condition, packed with skillful care, they are forwarded at the buyer's risk, f. o. b. Regular postage rates will be charged on all goods sent by mail.

NEEDLES

Ordering To have orders for needles promptly and accurately filled, the empty package, a sample needle, or a full description should be given. See marks on packages. An intelligible order would read as follows:

100 Needles, Round Shank, No. 12 Herakles Square Point.
100 Needles, Round Shank, No. 12 Antaeus Square Point.

Success in the operation of these machines can be assured only by the use of genuine Union Special Needles, furnished by the Union Special Machine Company. Obviously, it is to our interest to maintain the reputation of the machines by furnishing the very best needles obtainable.

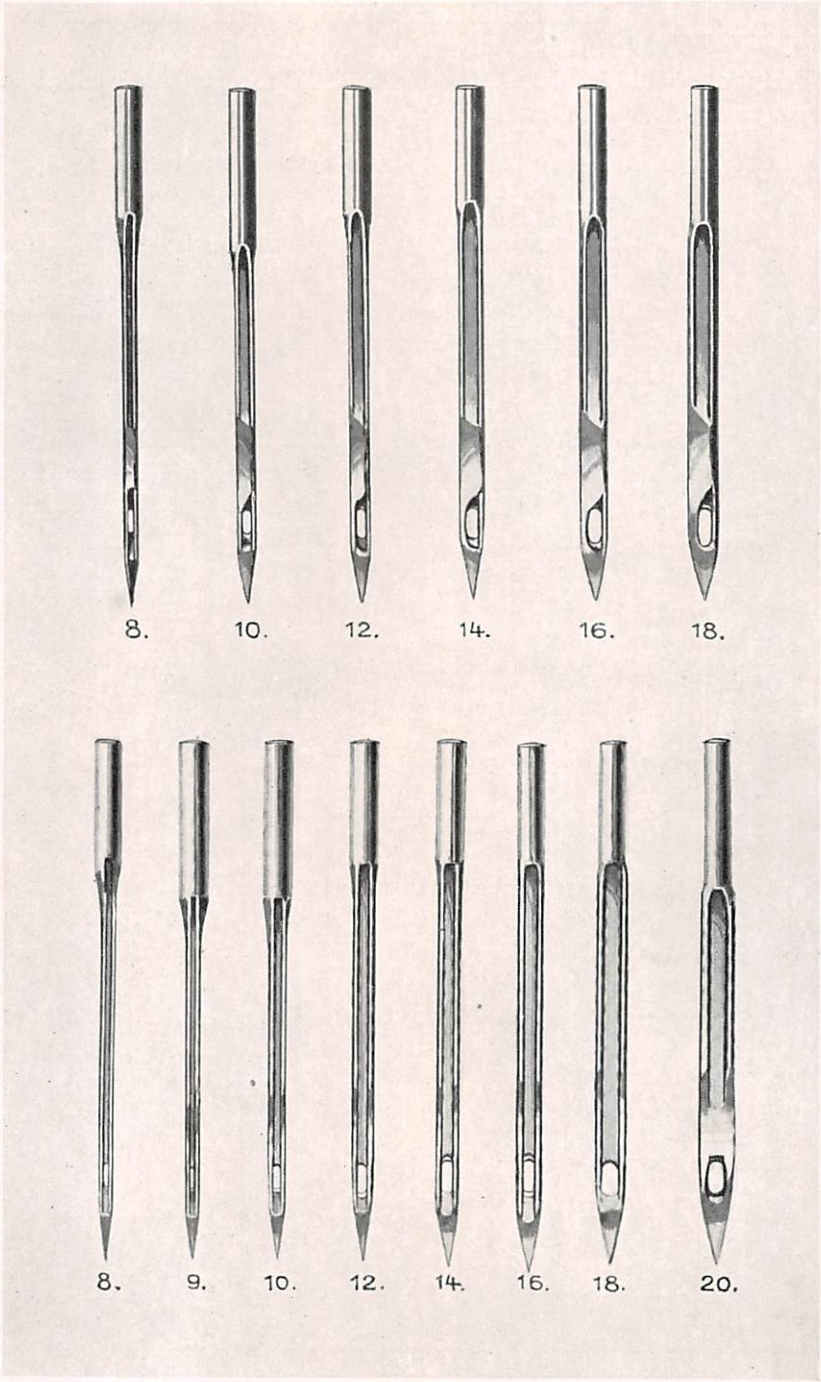
Terms Prices on needles are strictly net. Leaving the factory in perfect condition, packed with skillful care, they are forwarded at the buyer's risk, f. o. b. Regular postage rates will be charged for all needles sent by parcel post. To safeguard against loss in the mail, parcel post packages will be insured at the buyer's expense when so requested in the order.

Size and Kind Machines in Class 80000 use Antaeus square point needles. Machines in Class 81000 use Herakles square point needles. The needles increase in size, as follows: 8, 9, 10, 12, 14, 16, 18.

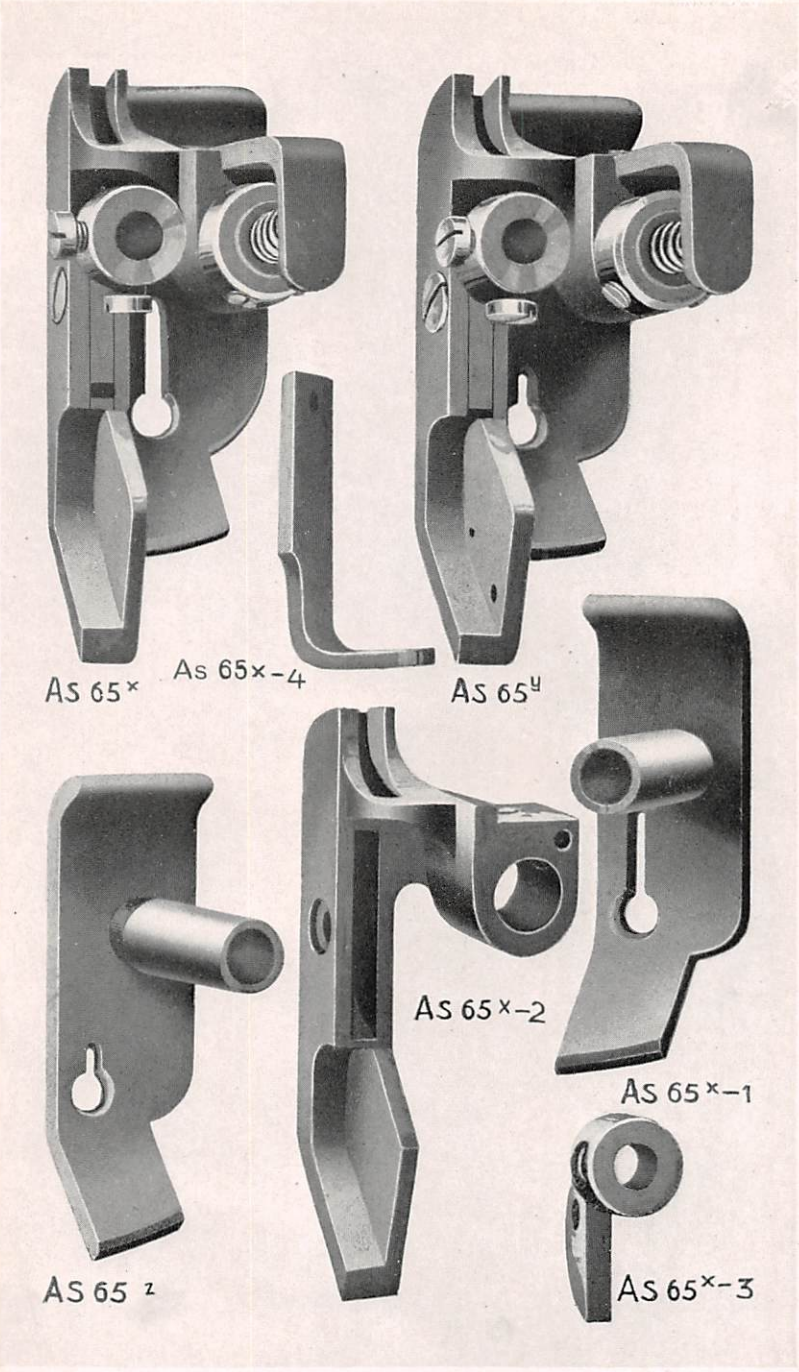
NEEDLE PRICES

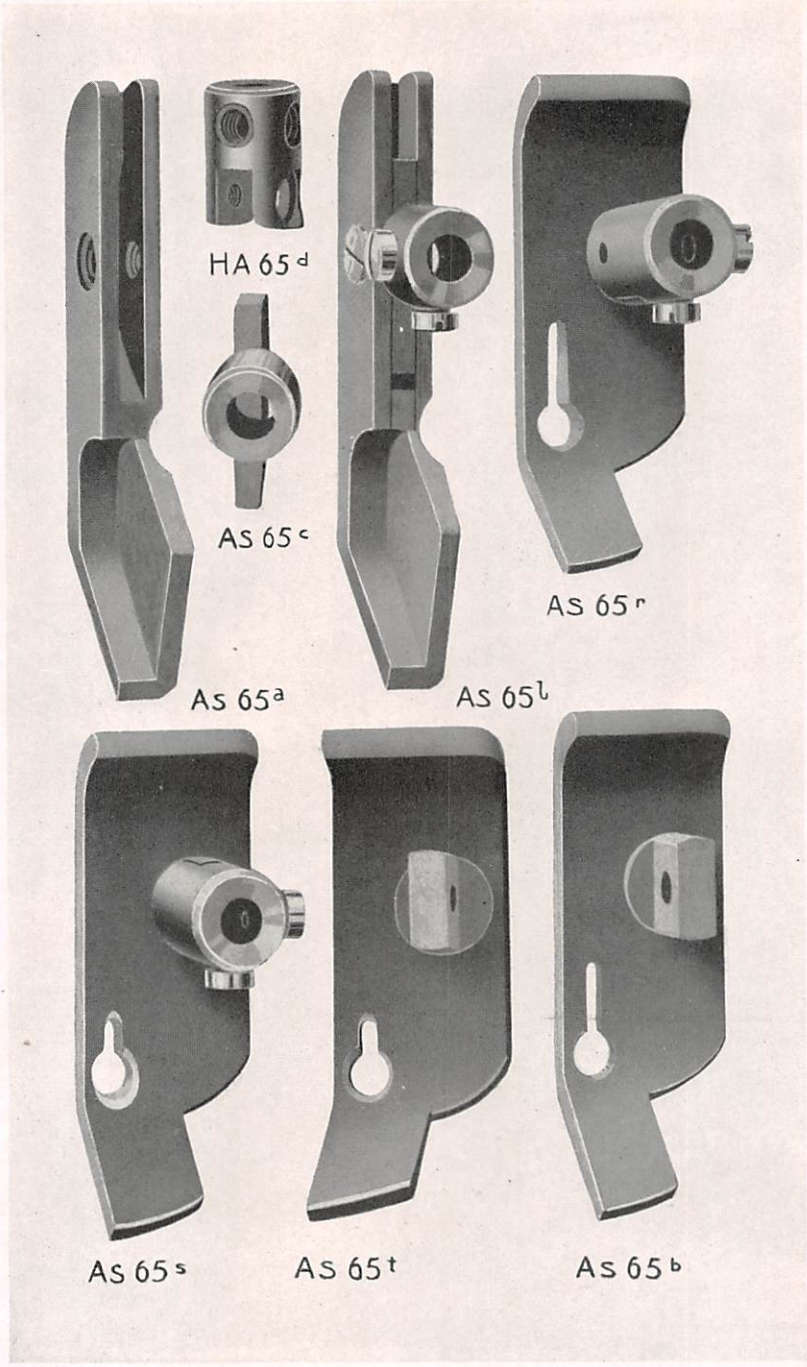
Round shank, Herakles square point, Nos. 8 and 10, per M	$52.00
Round shank, Herakles square point, Nos. 12, 14 and 16, per M	62.00
Round shank, Herakles square point, No. 18, per M	72.00
Round shank, Antaeus square point, Nos. 8 and 10, per M	47.00
Round shank, Antaeus square point, Nos. 12, 14, and 16, per M	57.00
Round shank, Antaeus square point, No. 18, per M	67.00

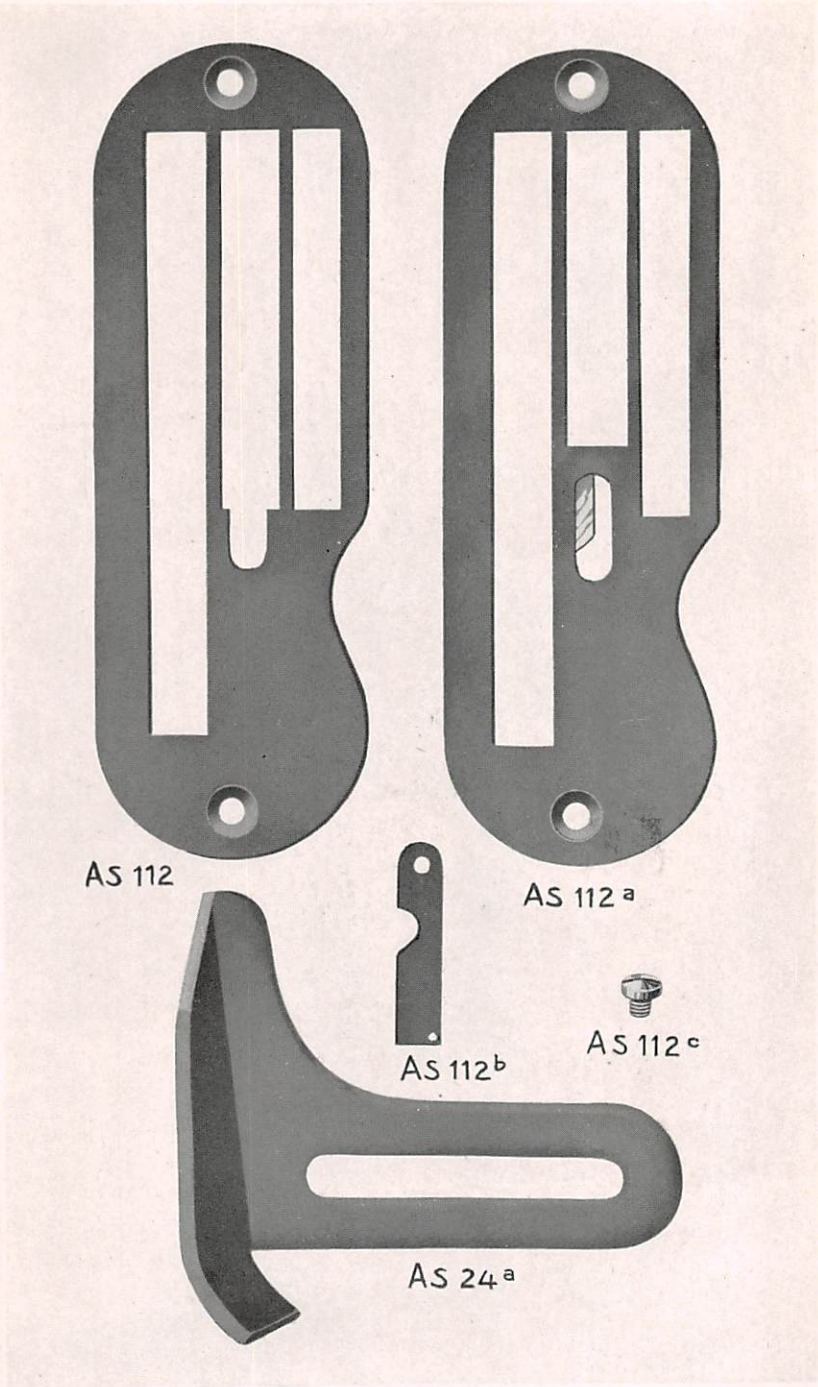
HERAKLES SQUARE POINT NEEDLE

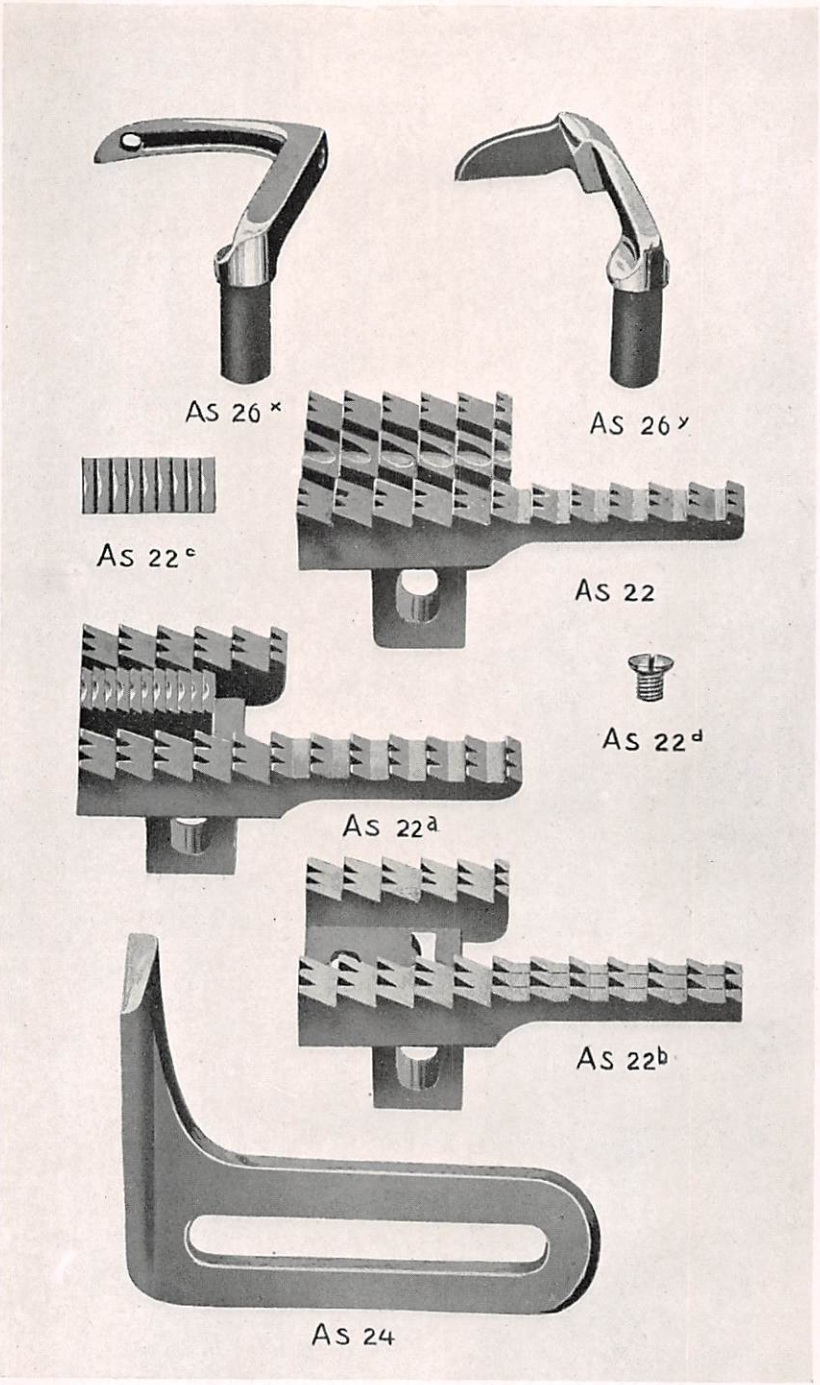


ANTAEUS SQUARE POINT NEEDLE









AS 124

AS 125

AS 127

AS 128

AS 129

AS 130

AS 131

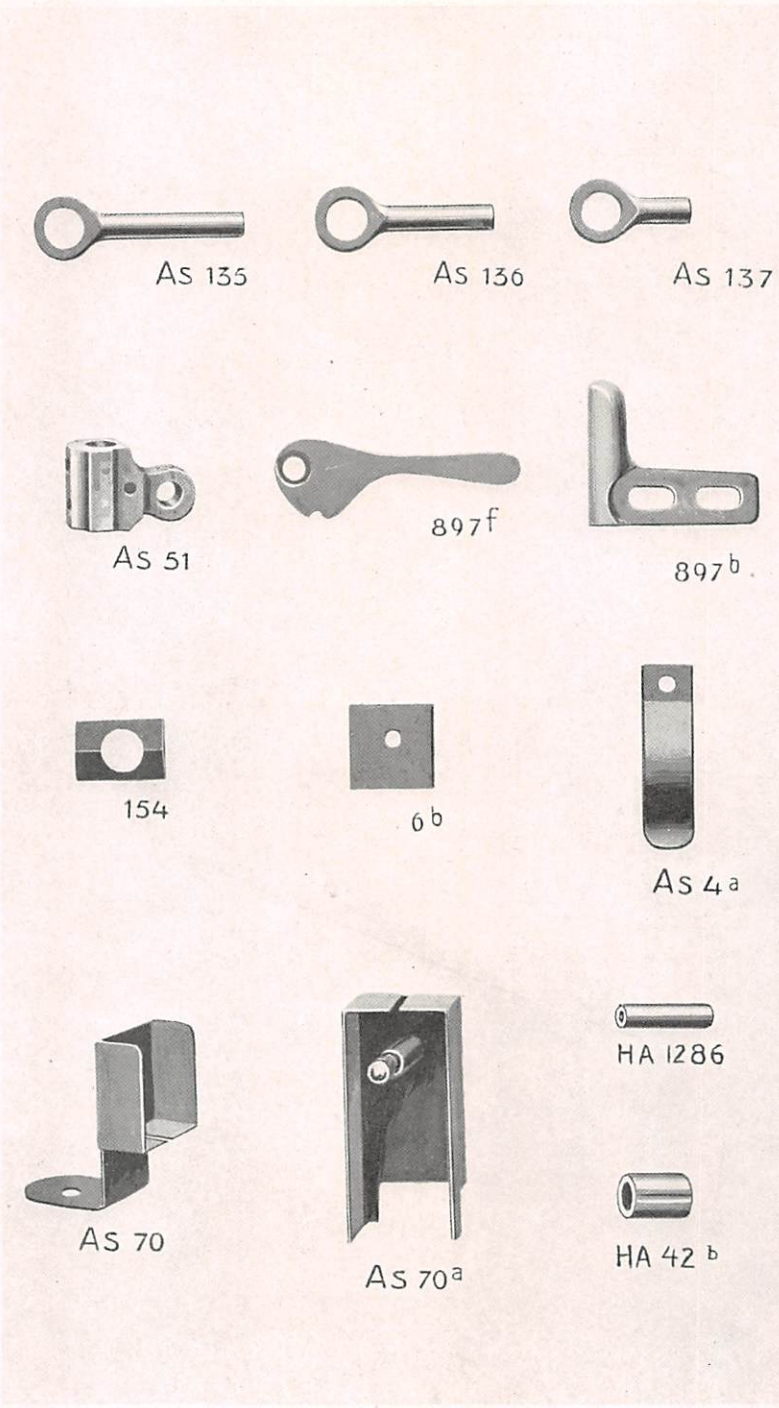
AS 132

AS 133

AS 113[a]

AS 138

AS 134



AS 59

AS 59a

AS 43b

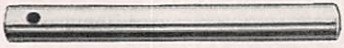
AS 43

AS 43a

AS 38a

AS 38b

AS 35

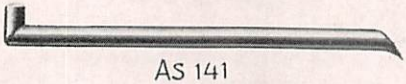


AS 31

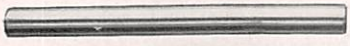
AS 32

AS 139

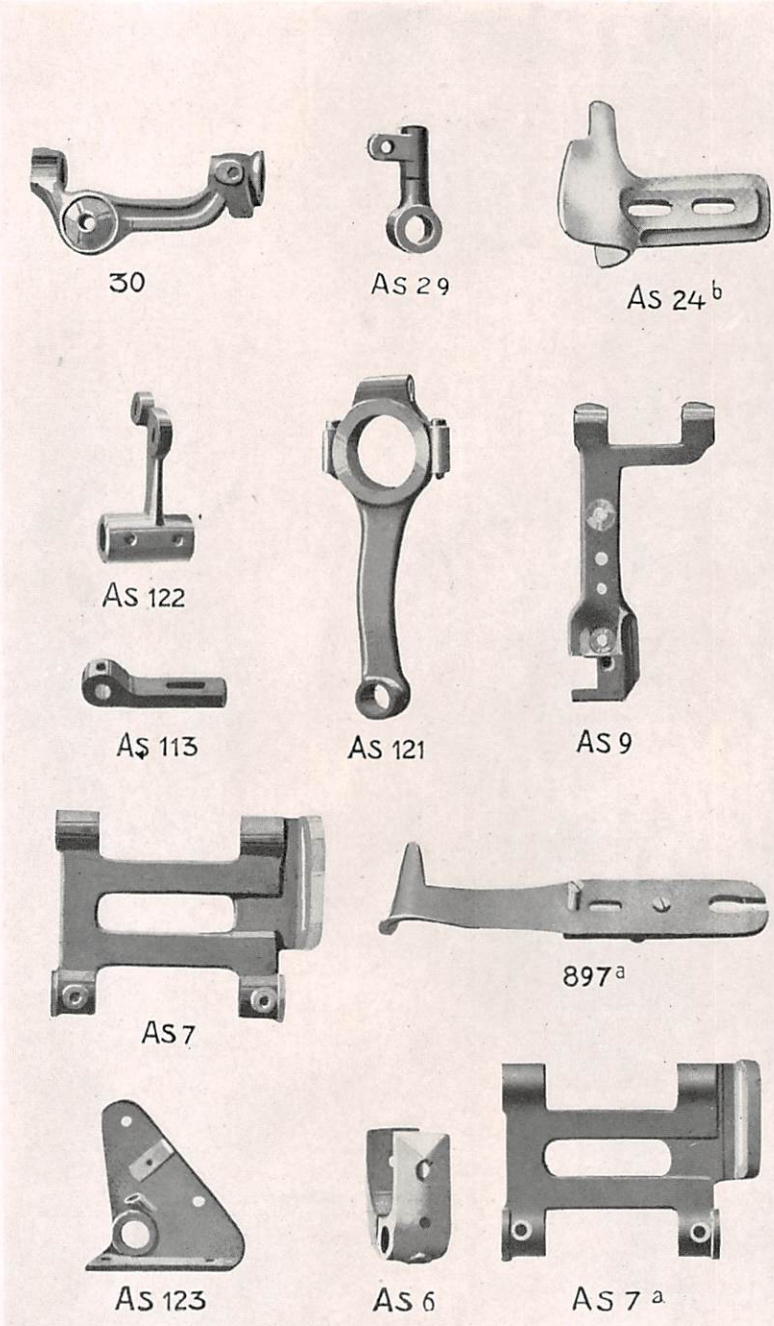
AS 130a

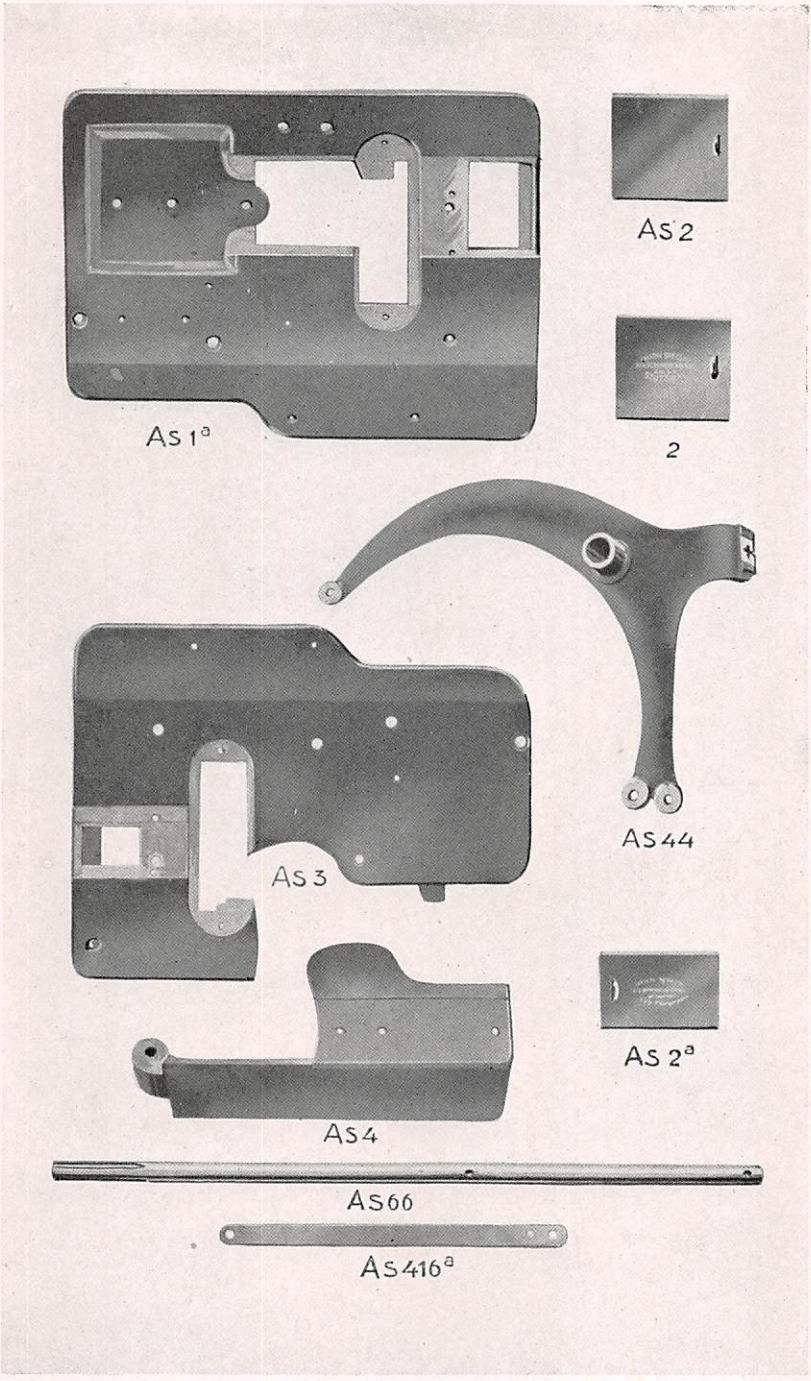


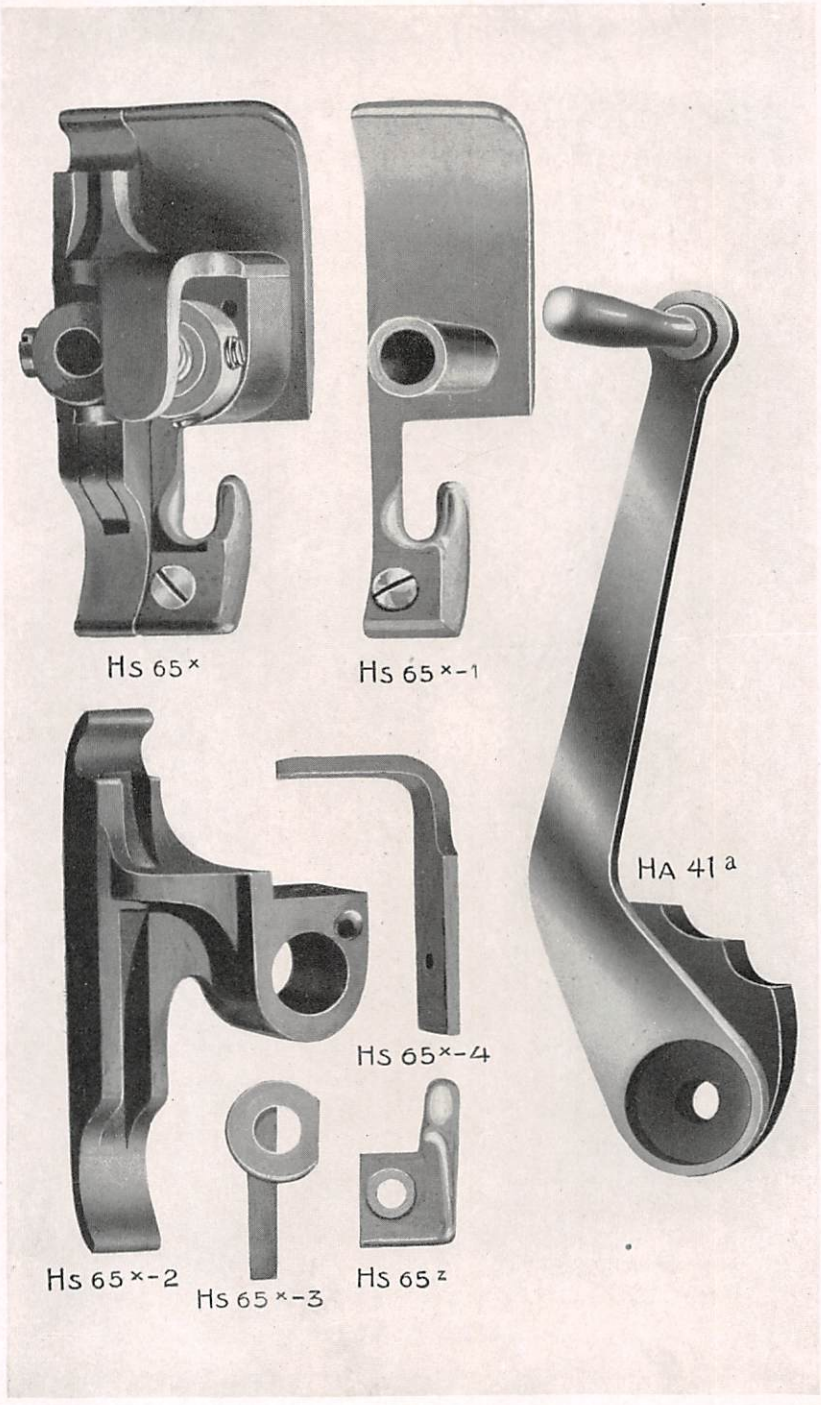
AS 141

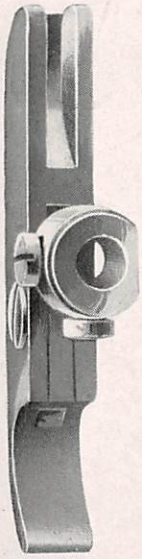


AS 3a

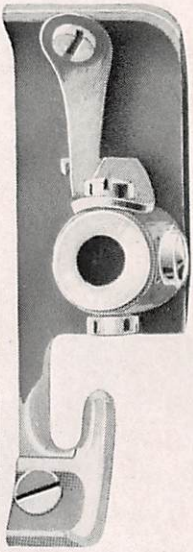




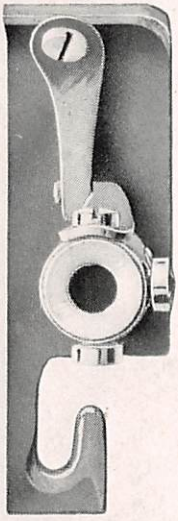




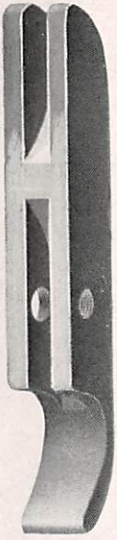
Hs 65



Hs 65a



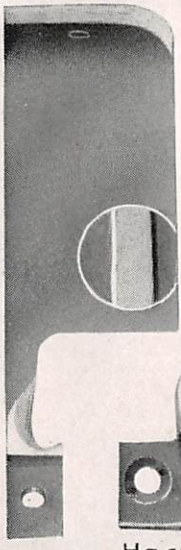
Hs 65b



Hs 65i

HA 65d

Hs 65k

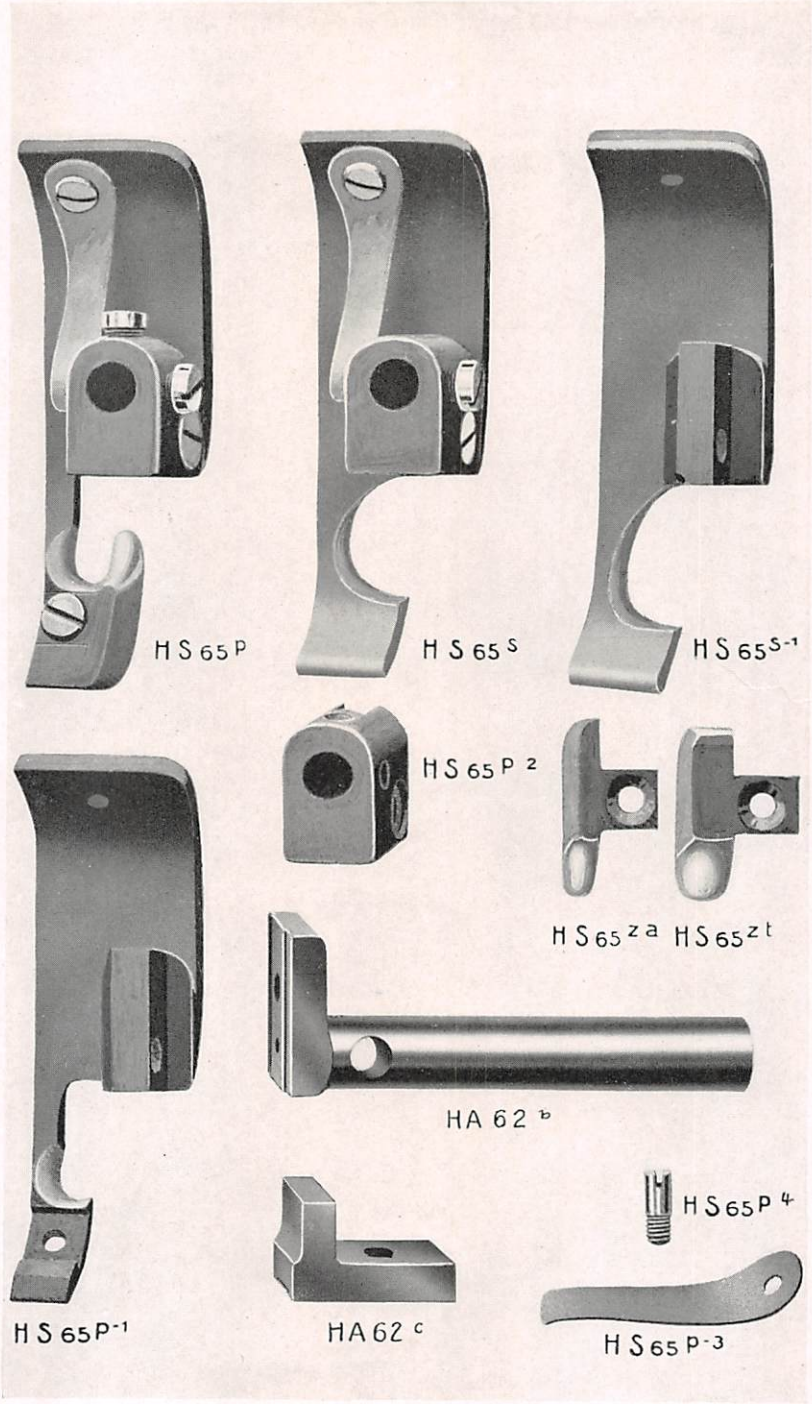


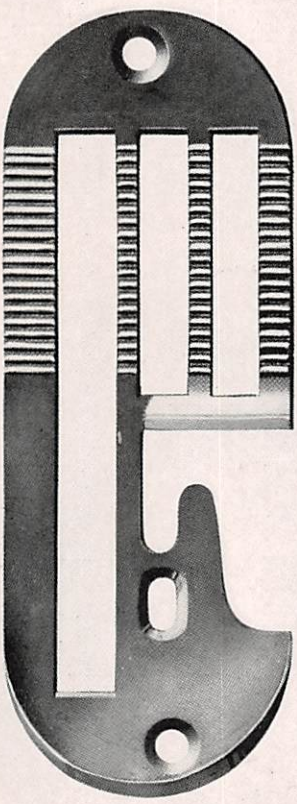
Hs 65c

Hs 65z

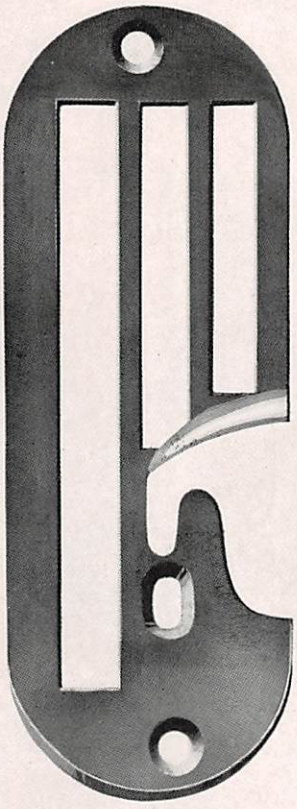
Hs 65g

Hs 65h





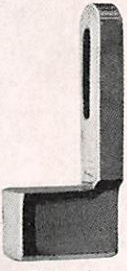
HS 112



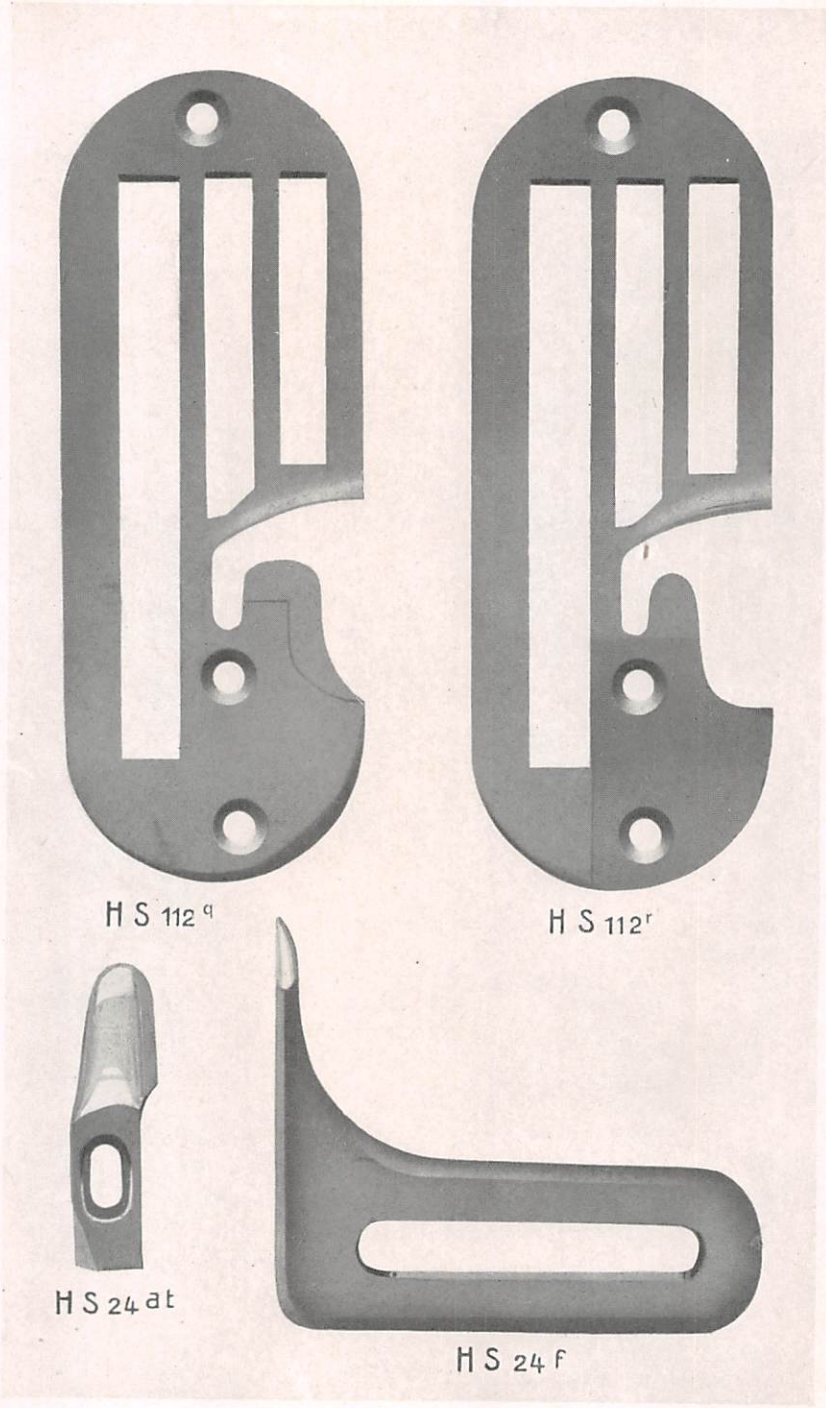
HS 112 P

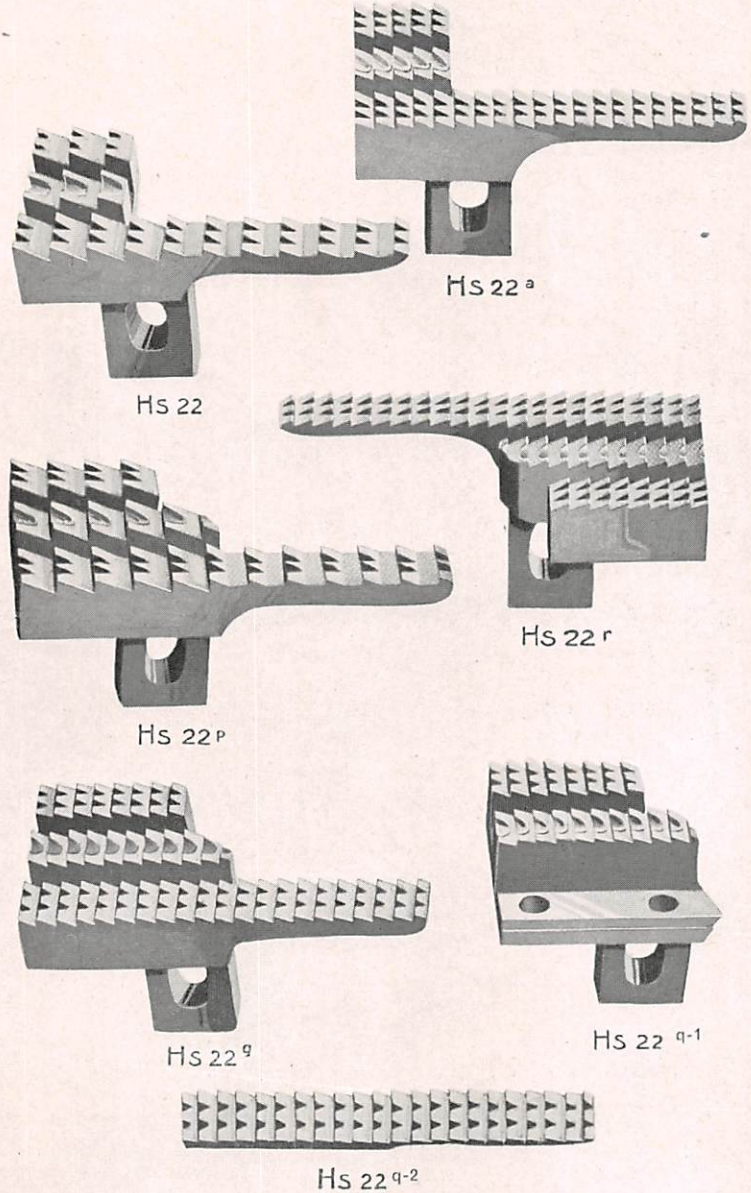
HS 112 a-12

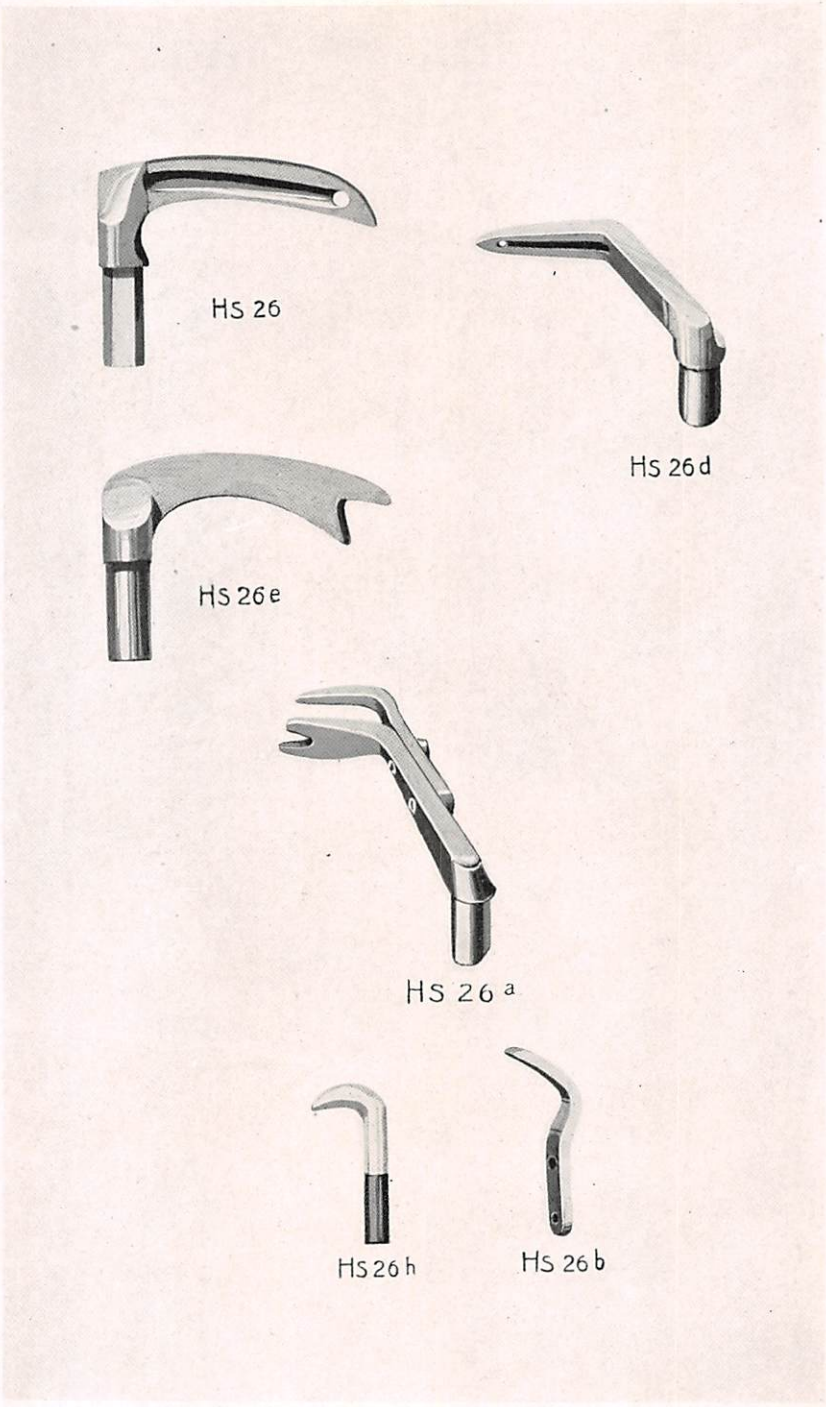
HS 112 a-16

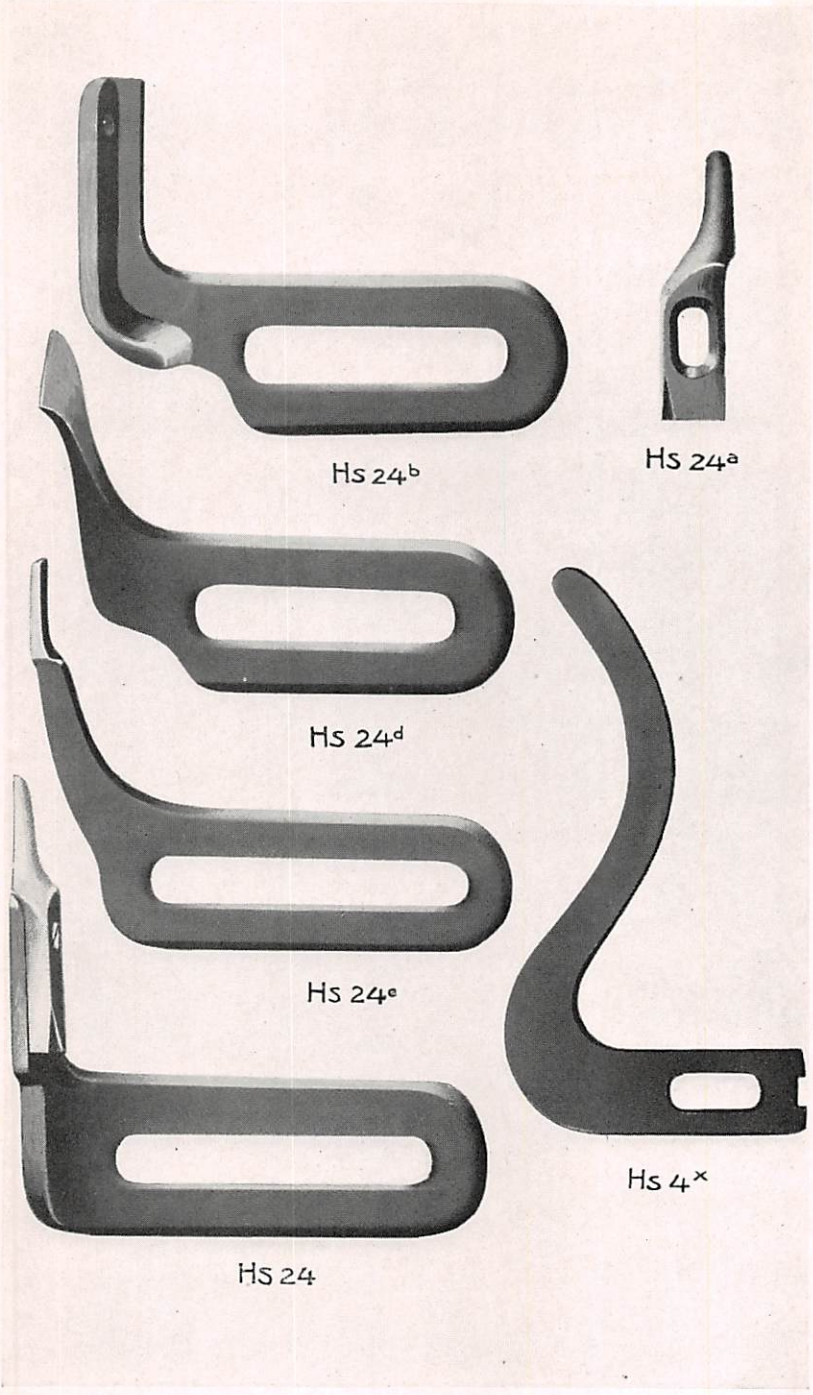


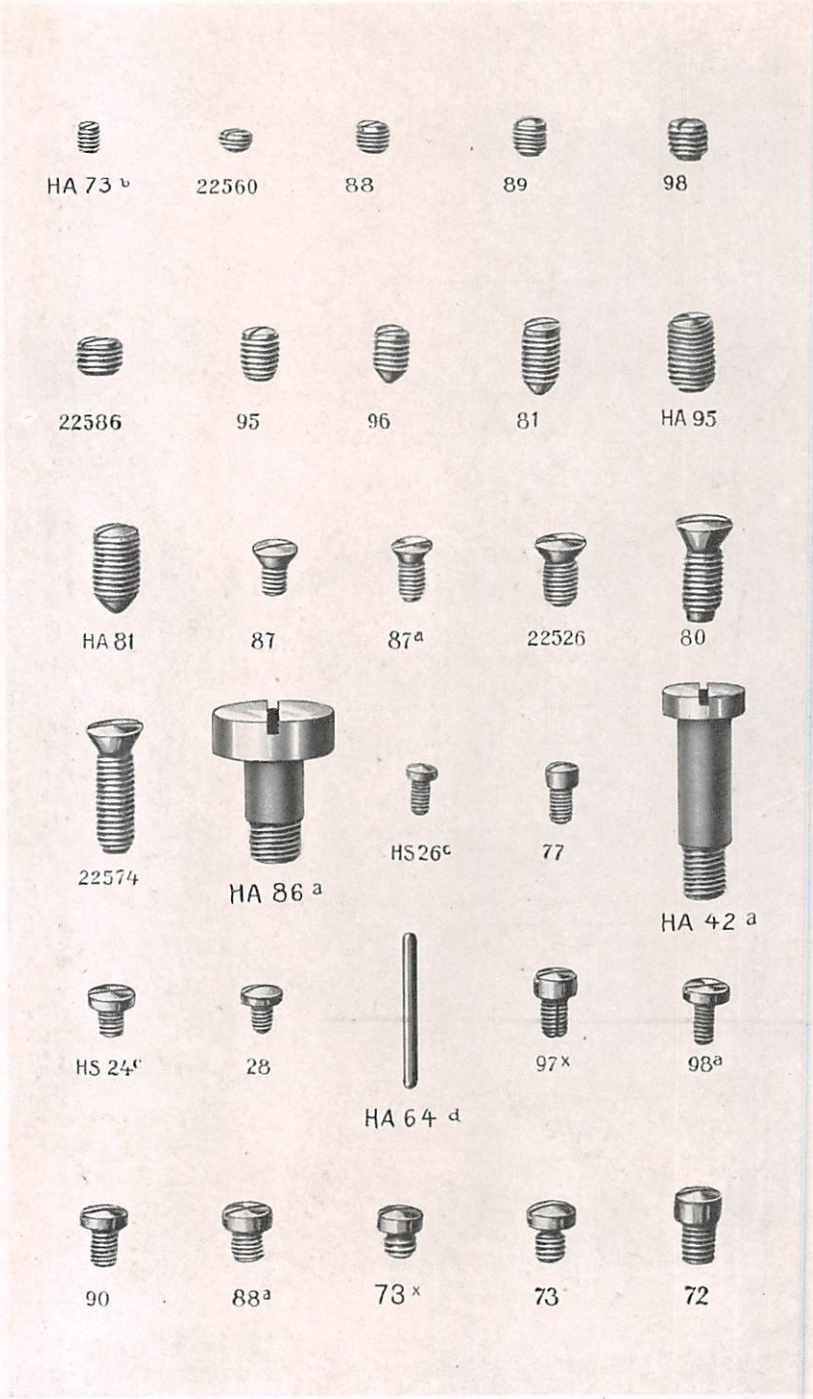
HA 9 b

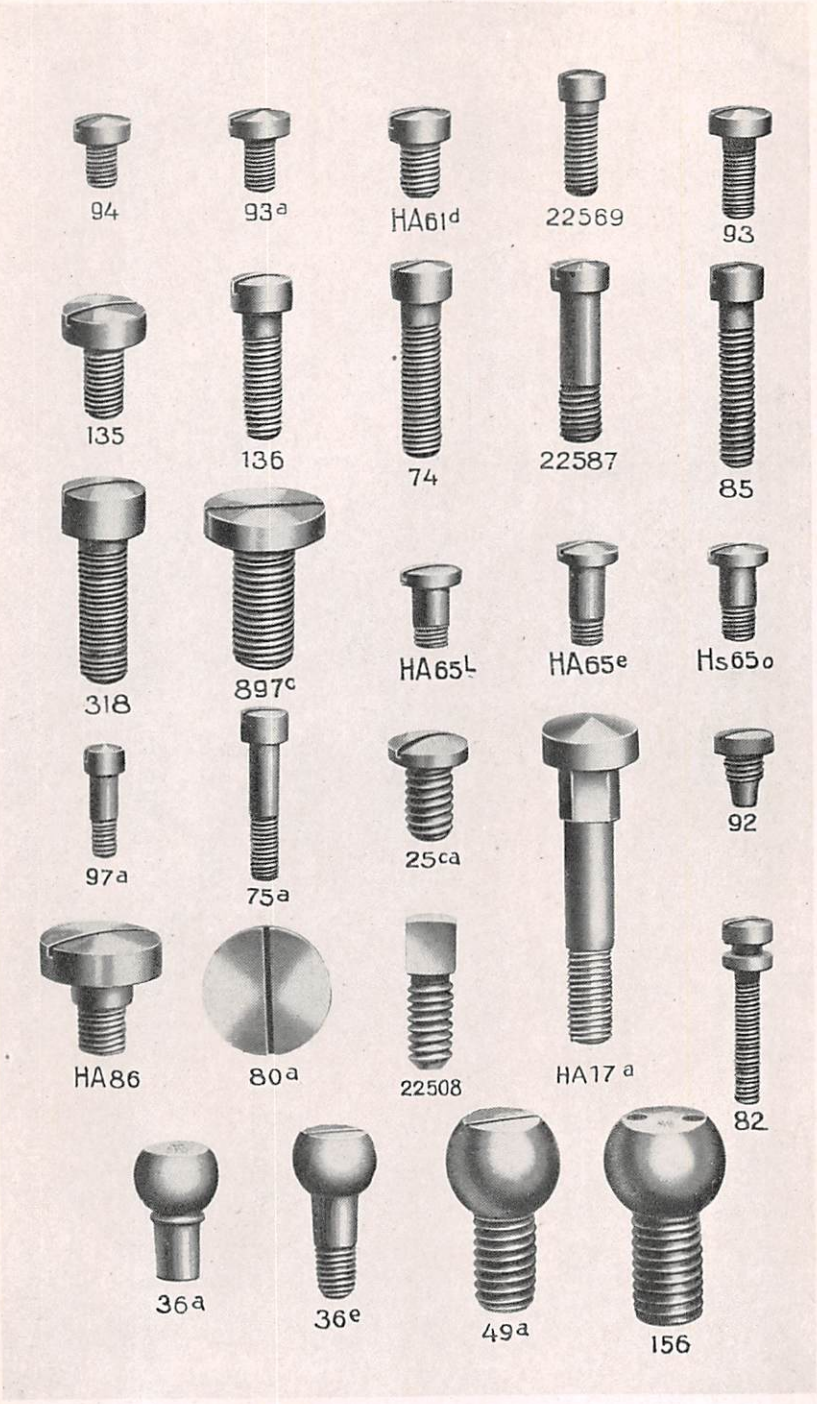


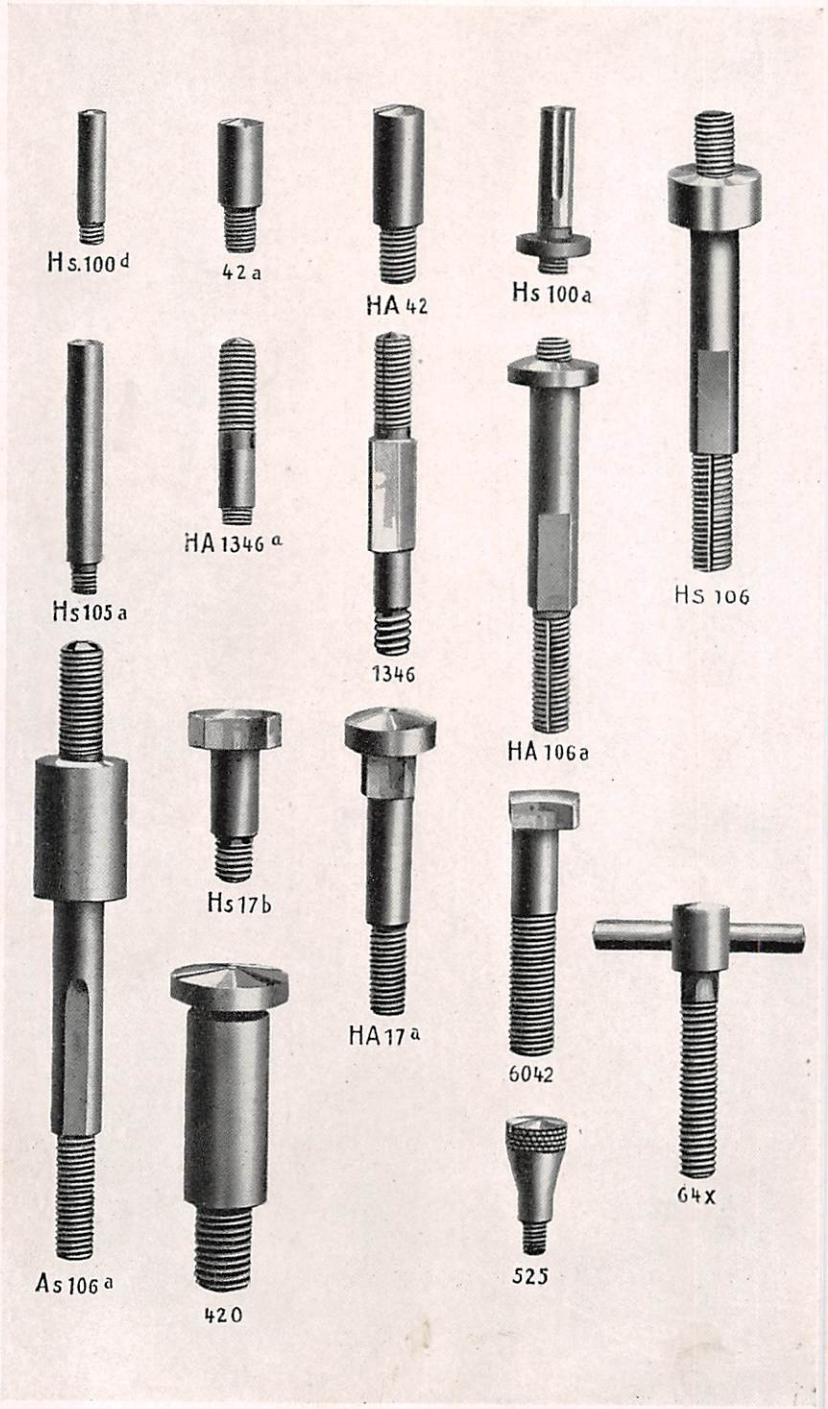


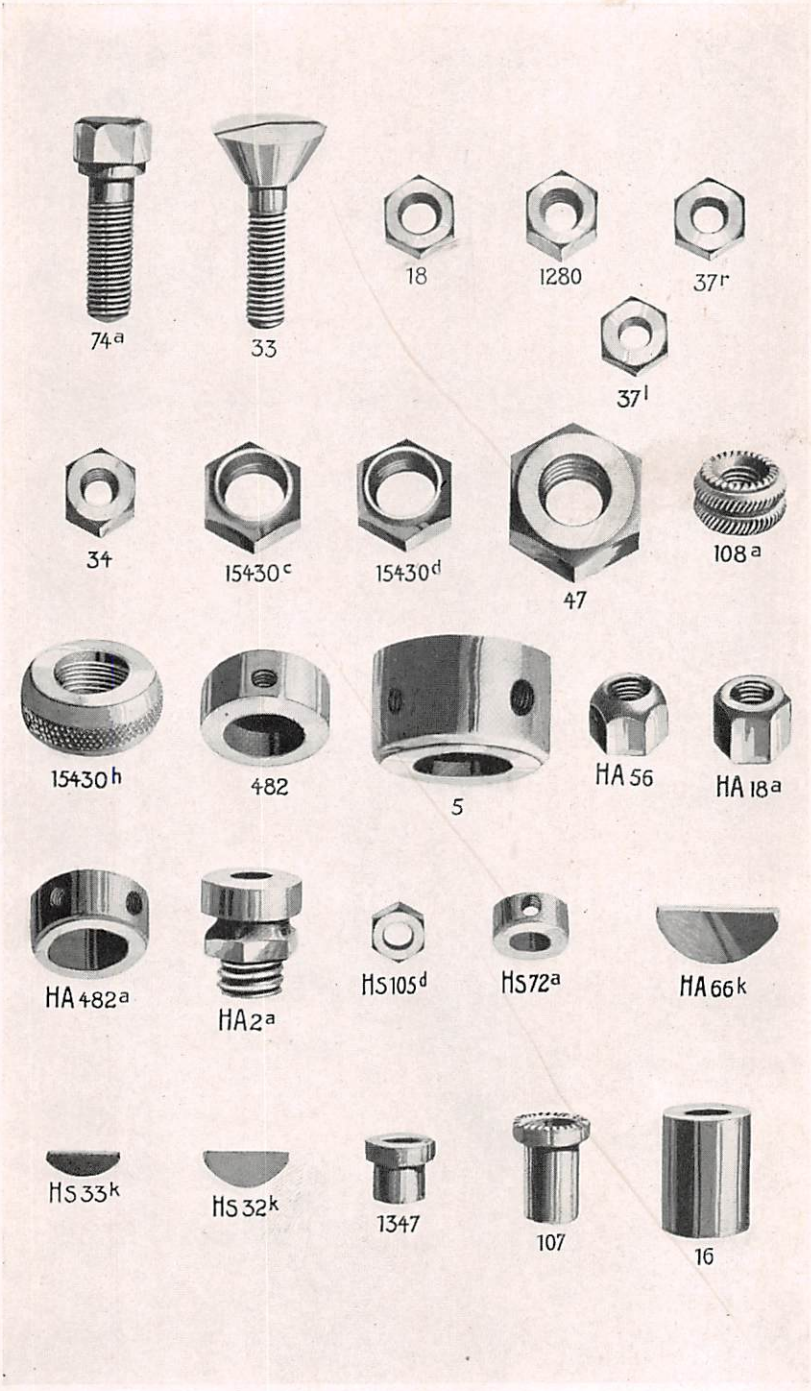


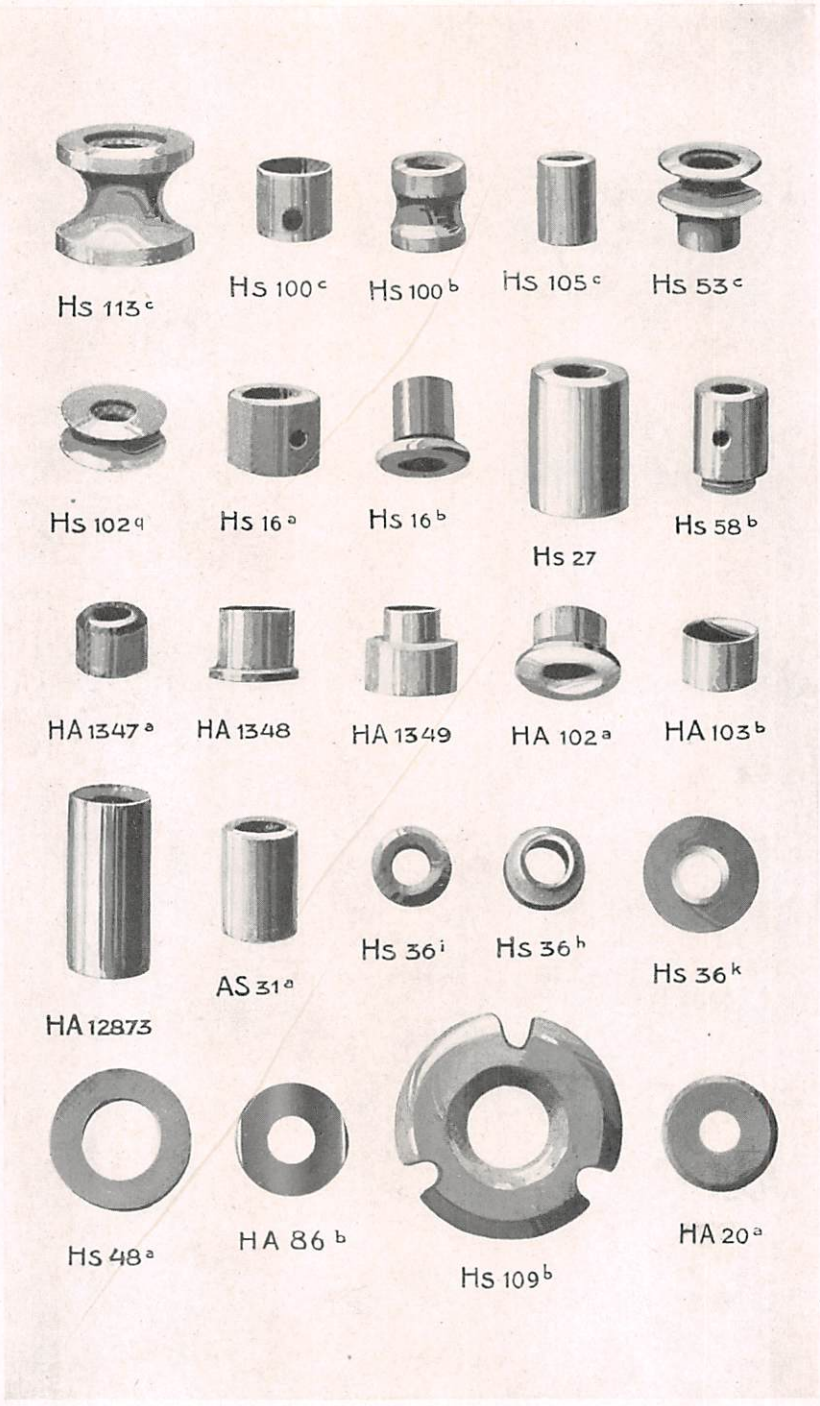


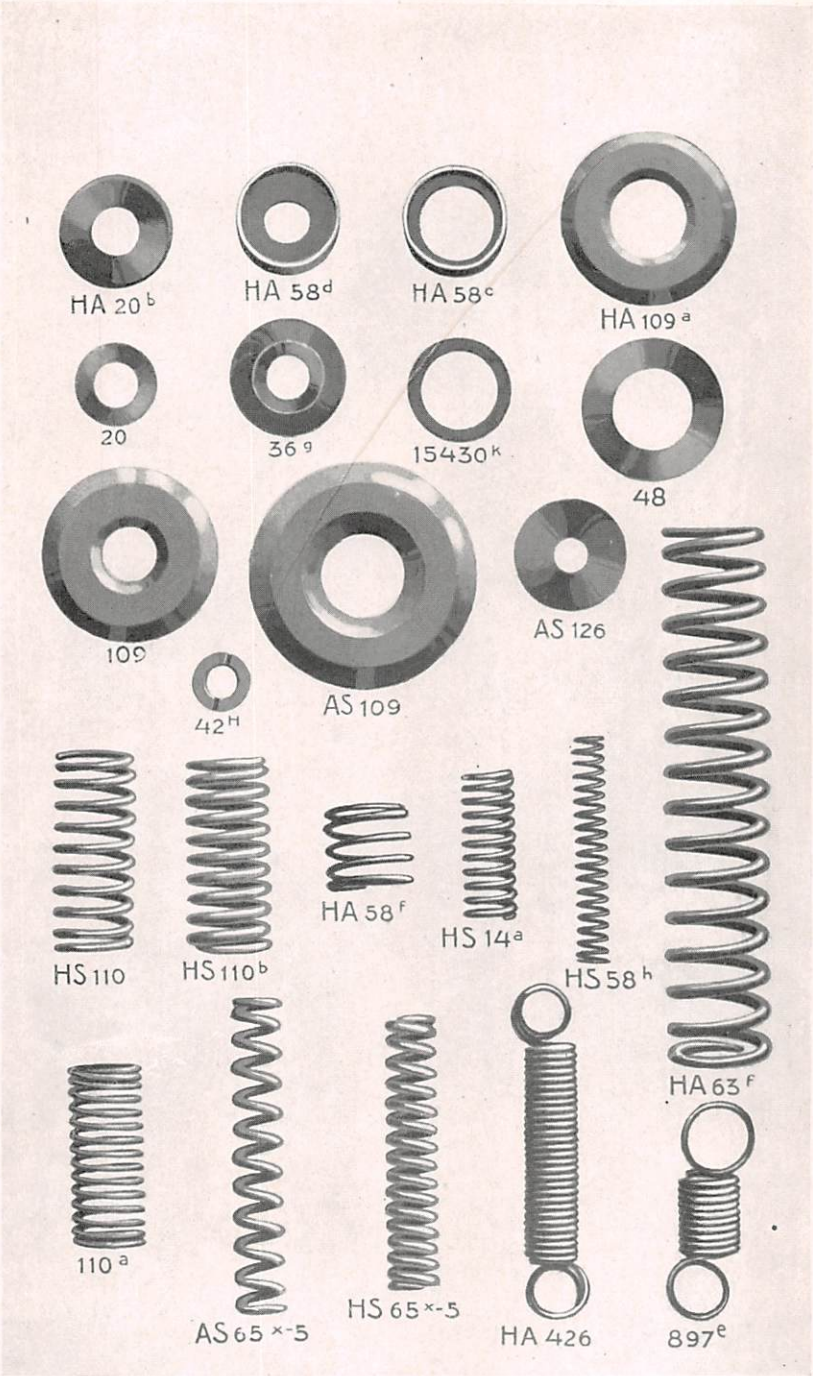


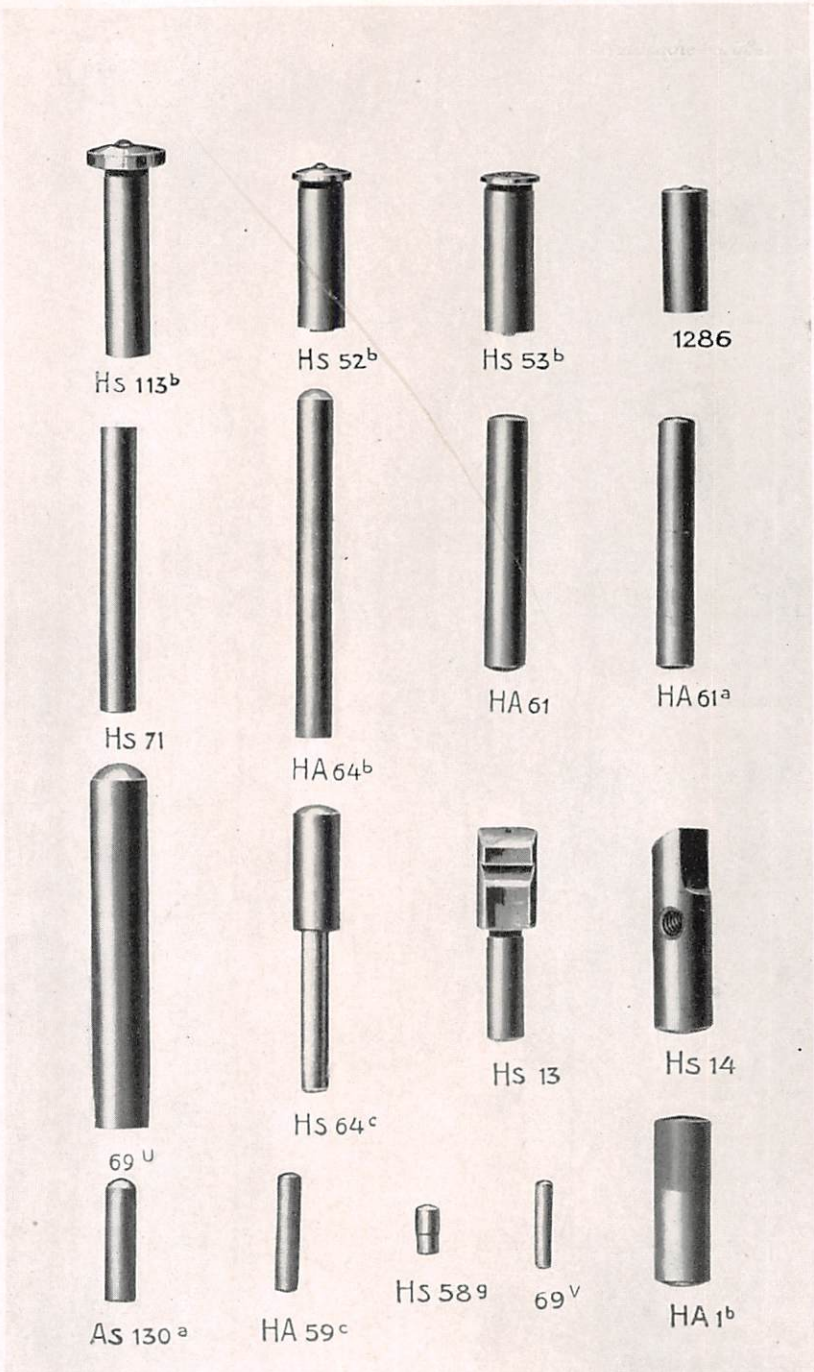


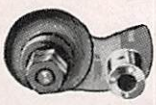








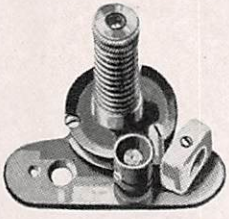




Hs 58

Hs 52

Hs 52 a



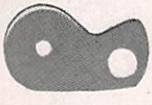
Hs 100

Hs 100e

Hs 53

Hs 53 a

Hs 57



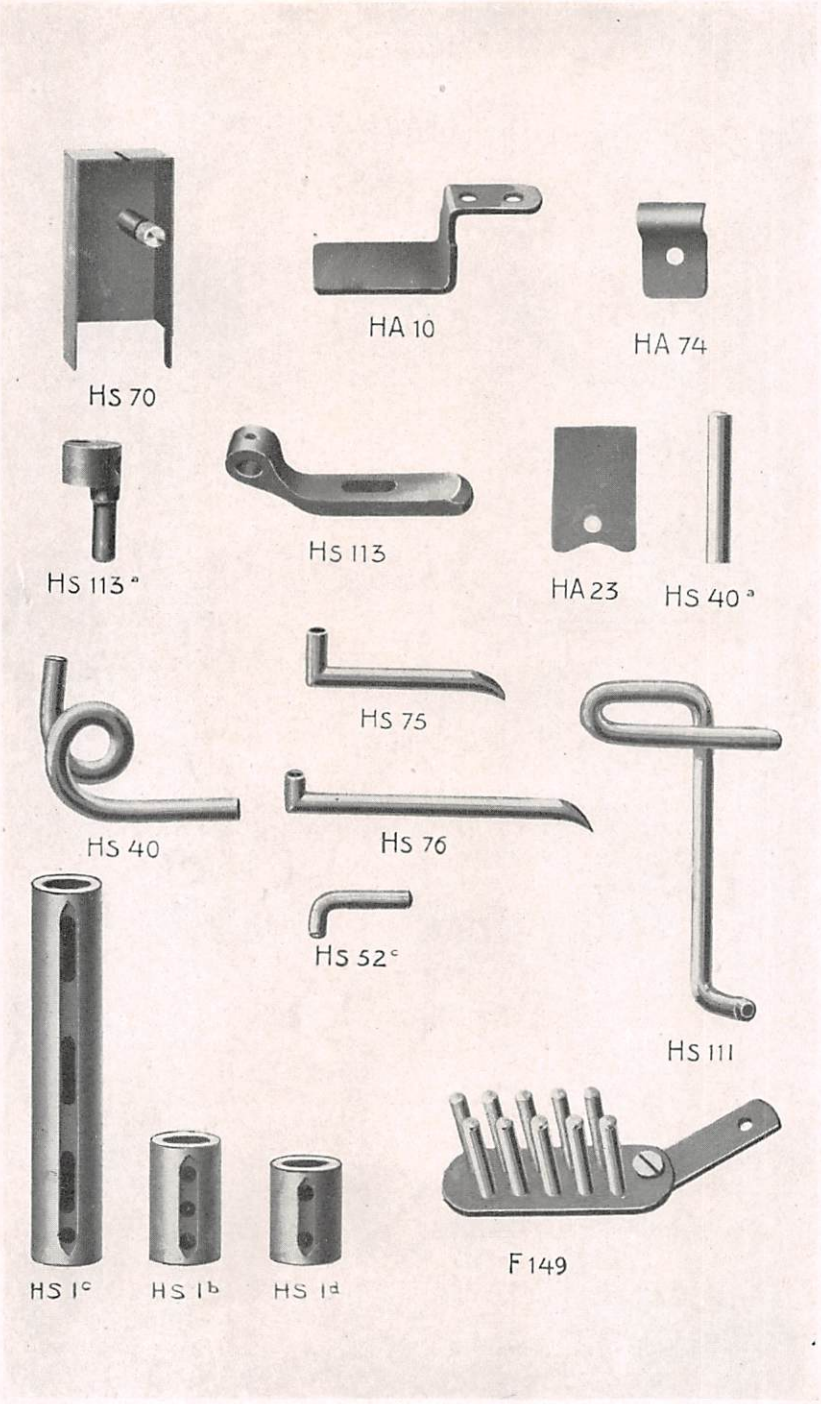
Hs 58 a

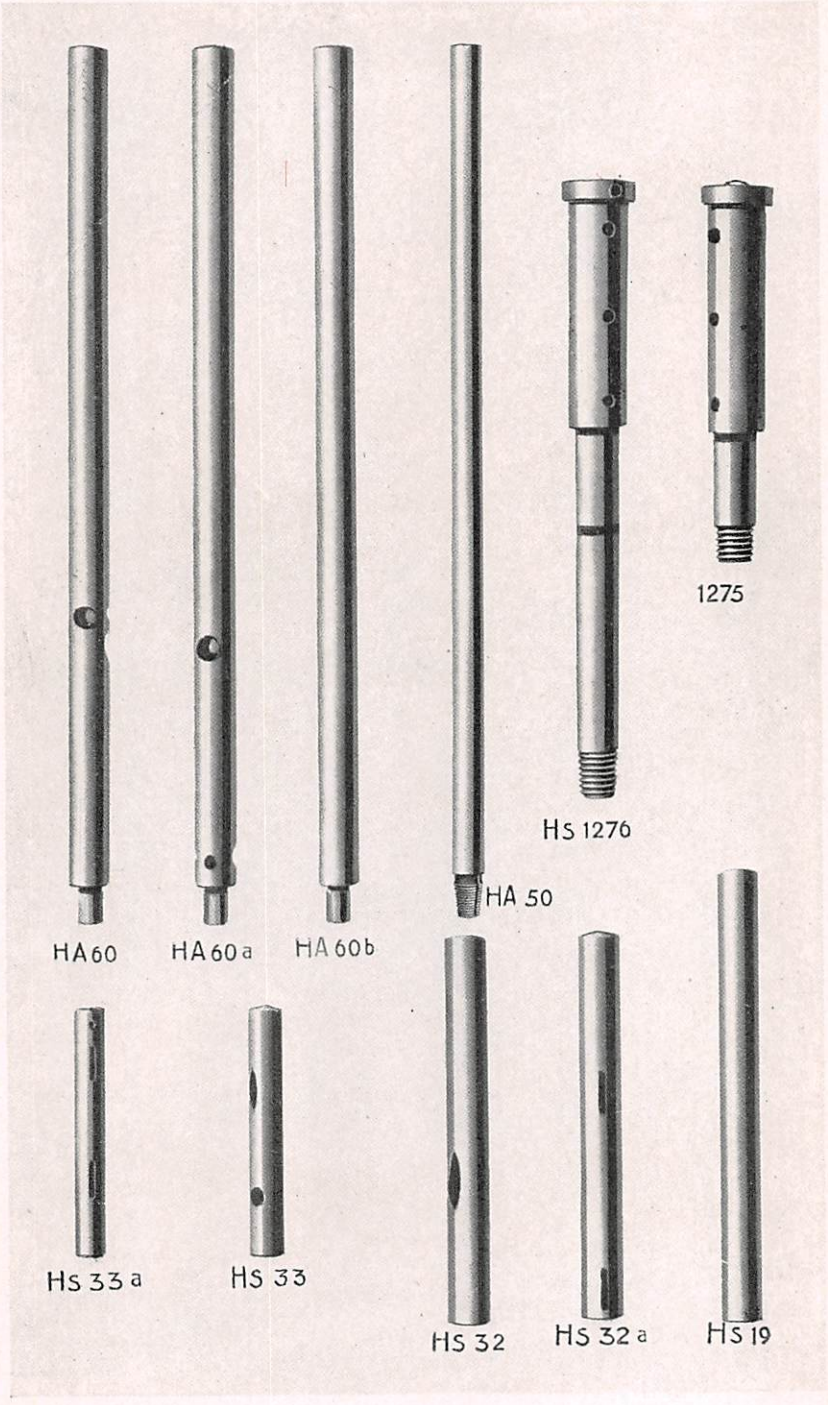
Hs 103 a

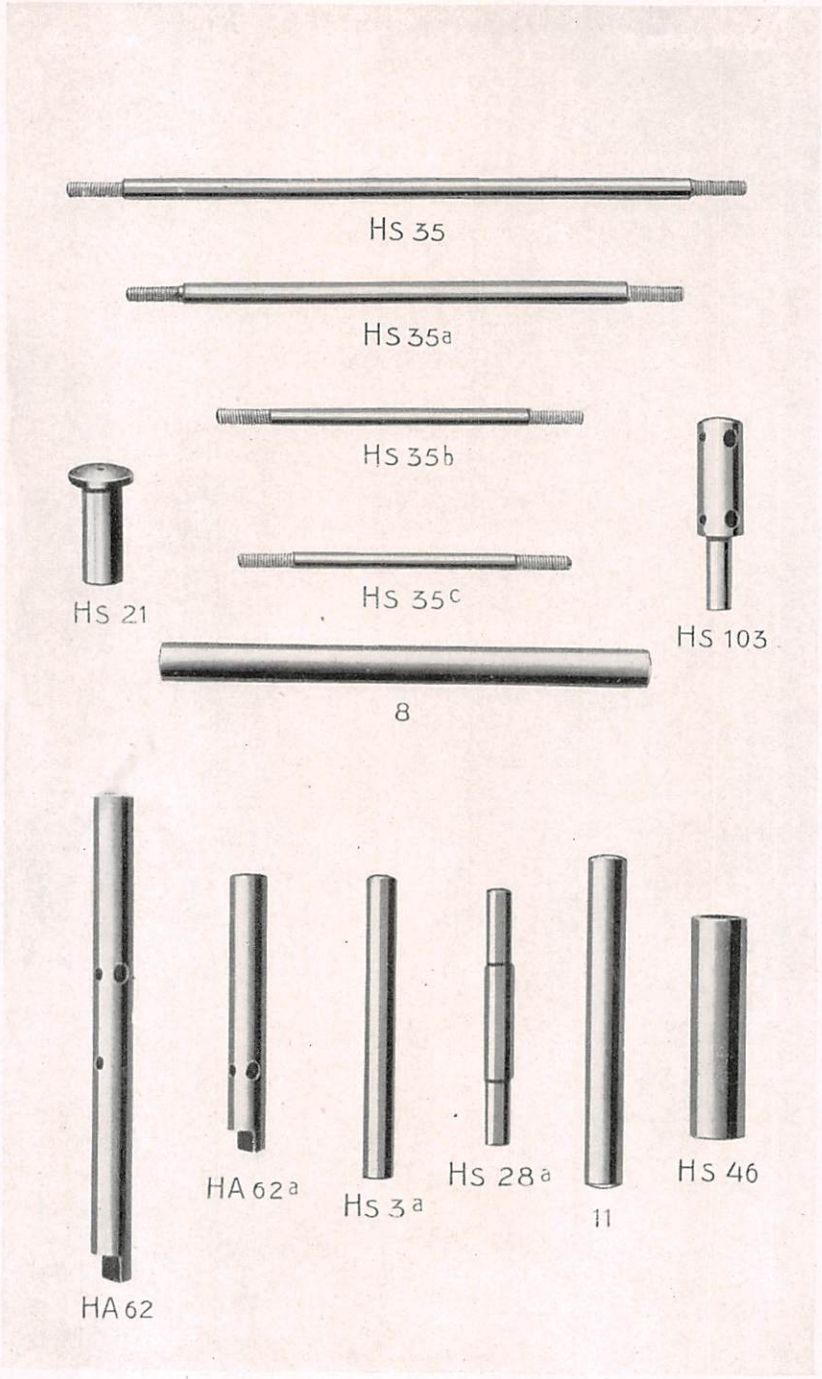
Hs 105

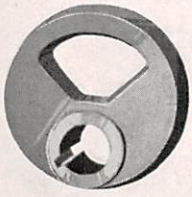
Hs 105 b

154

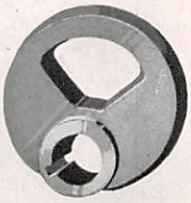






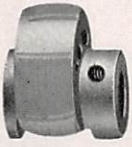


HS 59b



HS 59a

HS 38



HS 38a

HS 30

HS 31

HS 12

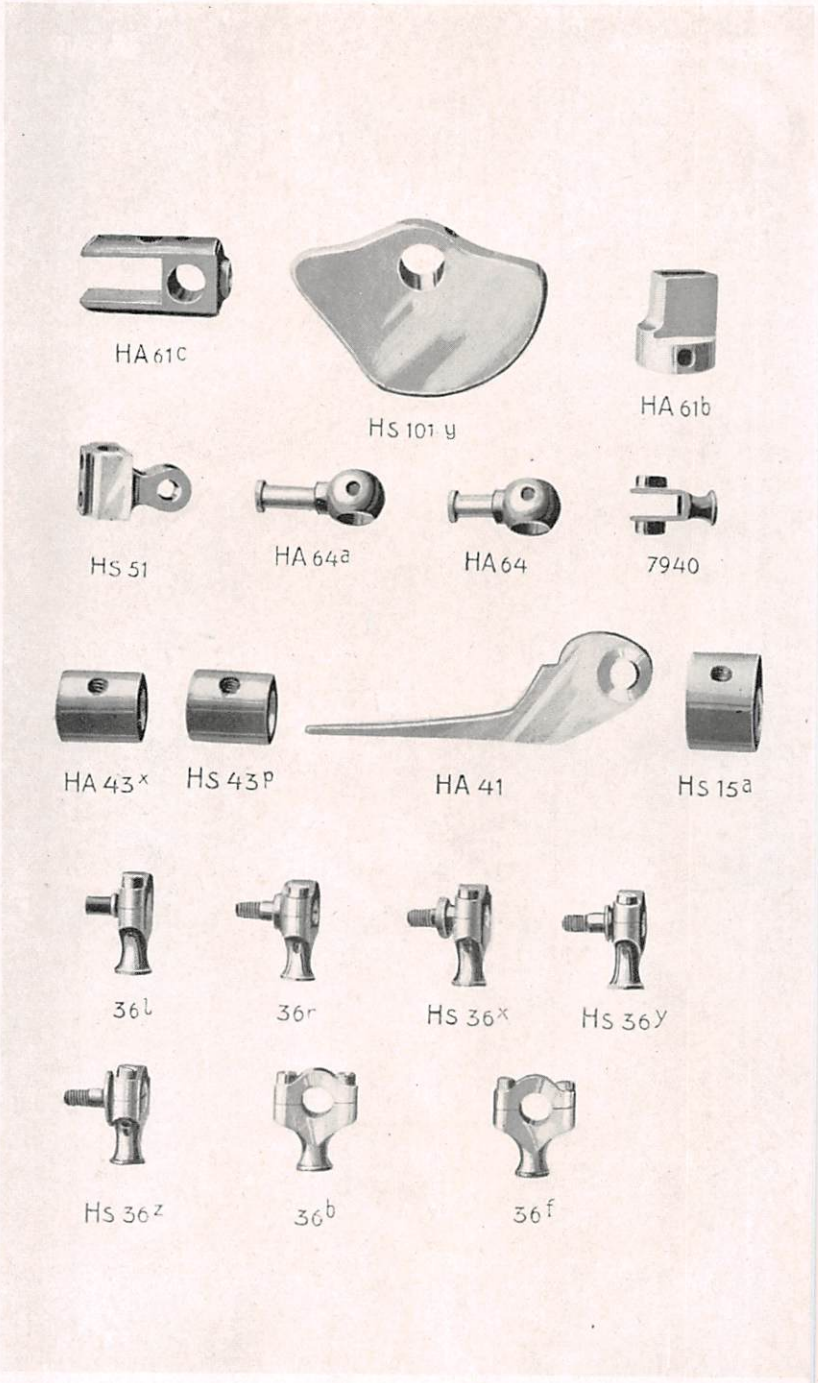
HS 11a

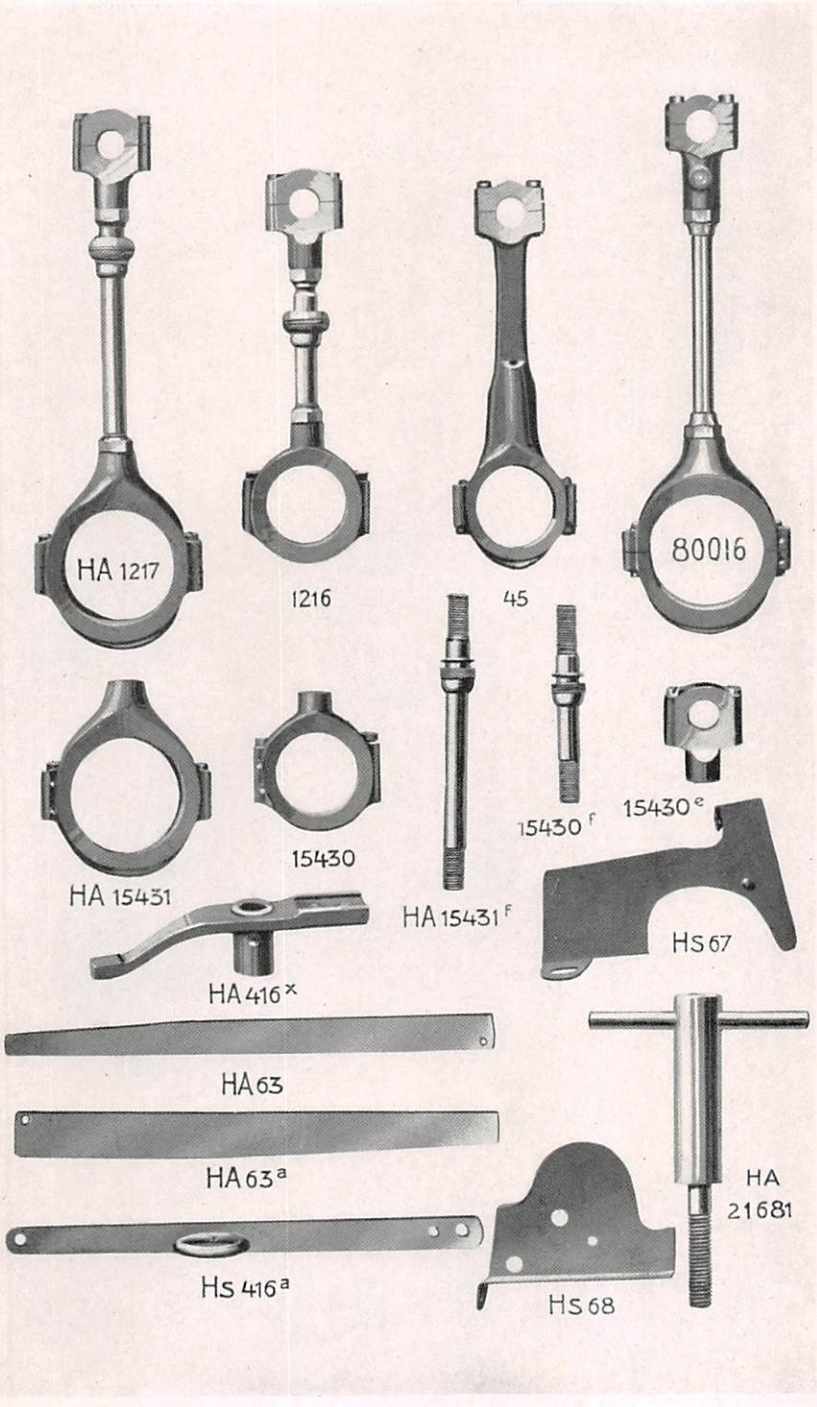
HS 34

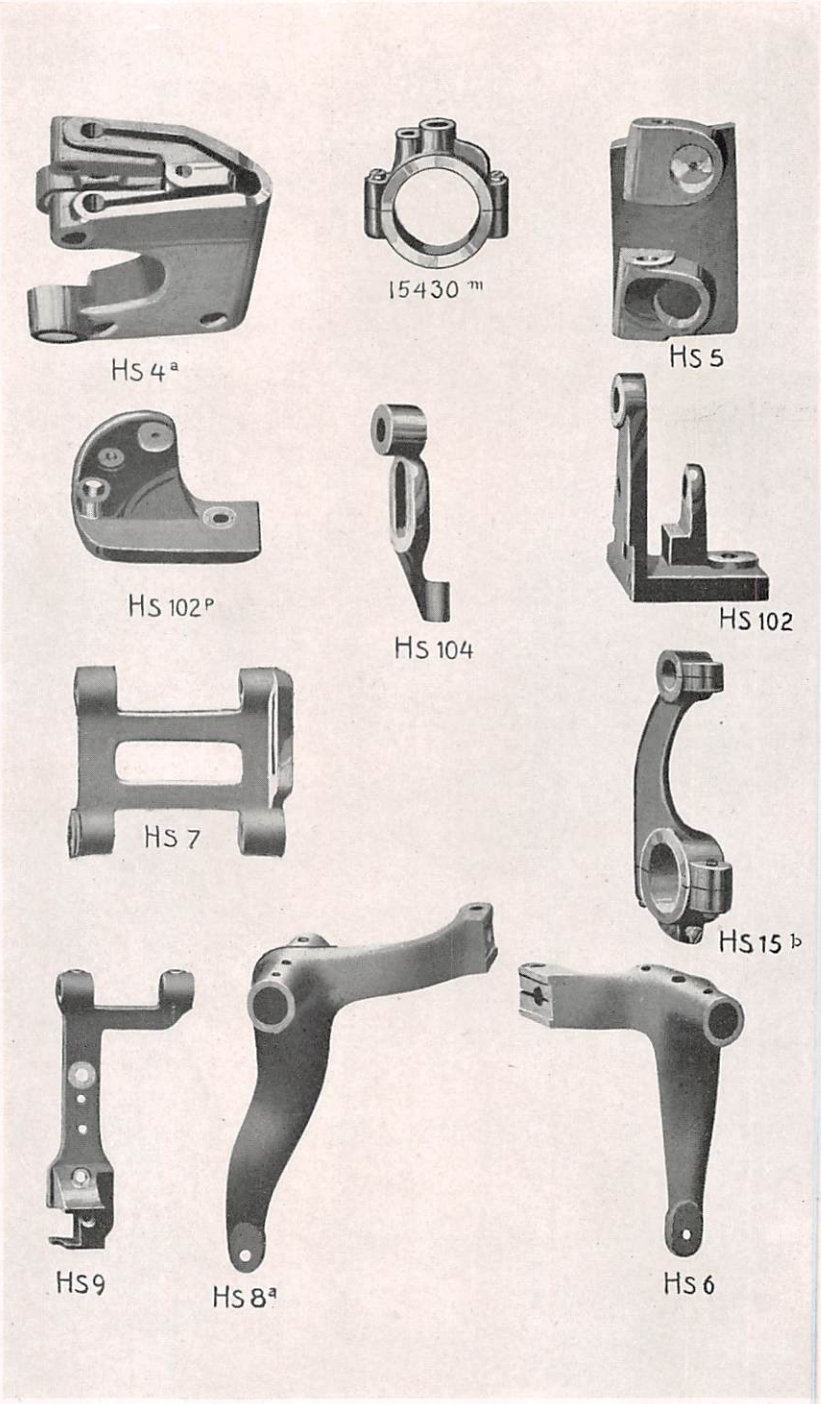
HA 54a

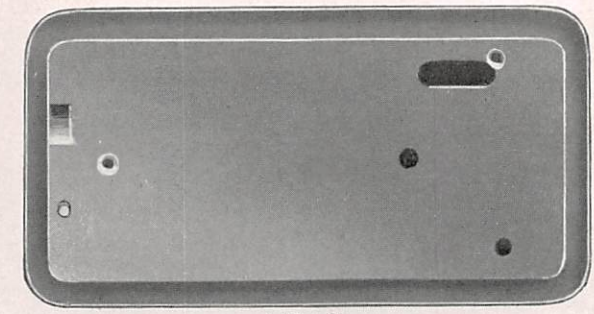
HS 29a

HS 29

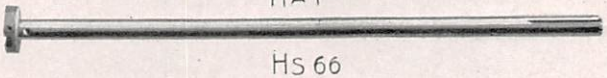








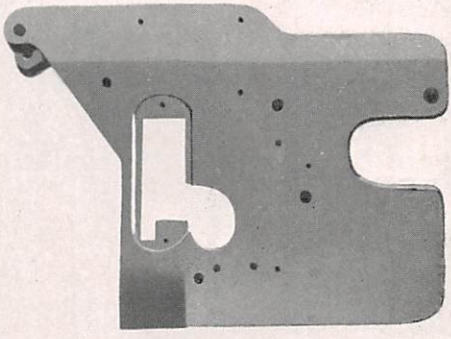
HA 1[a]



HS 66

HS 66[P]

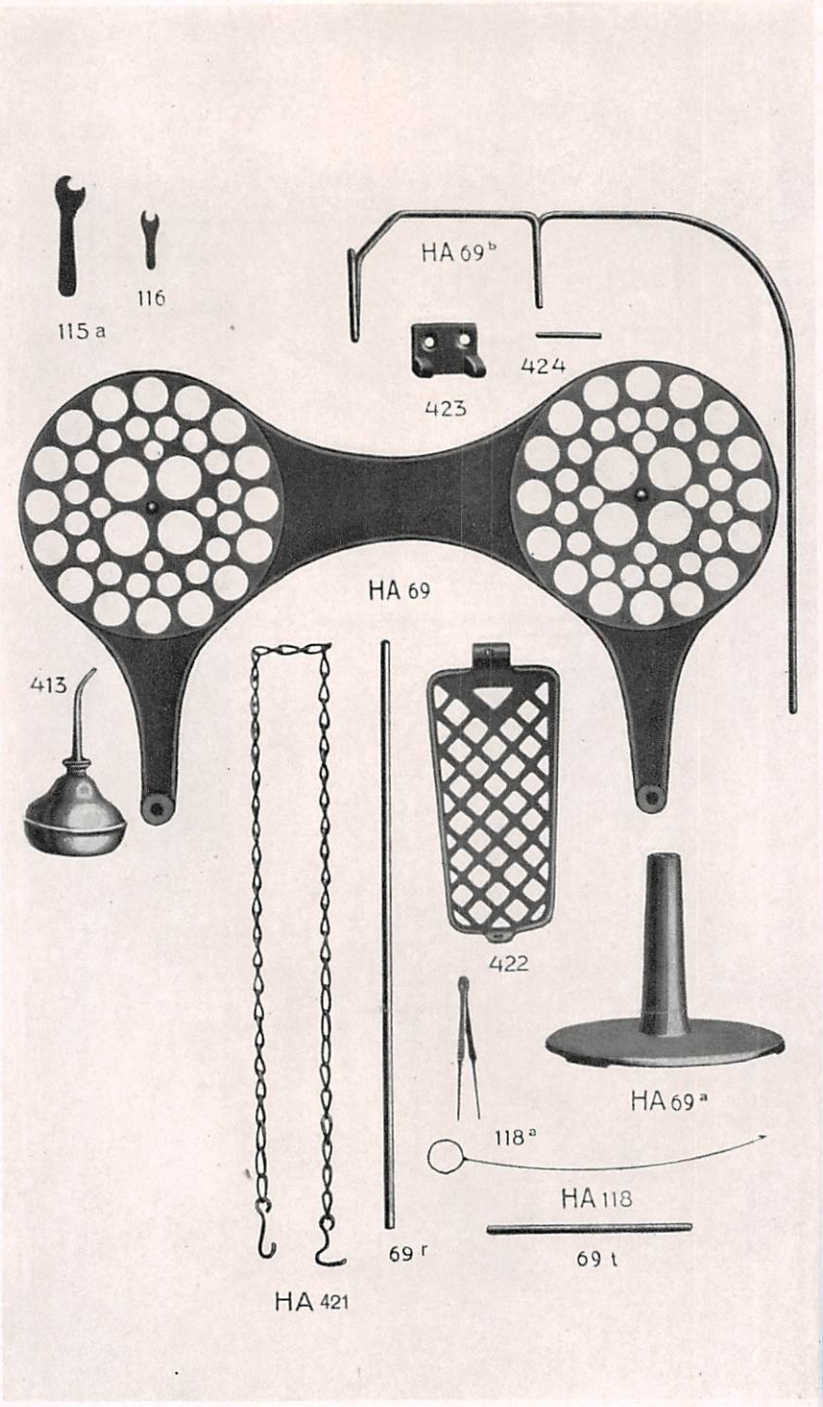
HS 3



HS 2

HA 59

HS 44



PRICE LIST OF PARTS

THESE PARTS ARE FURNISHED AT LIST PRICES FOR REPAIRS ONLY
SEE NOTICE ON PAGE 3

Number to Order By	Plate No.	Postage will be charged on all parts sent by mail. The figures in the second column refer only to the plates illustrating parts, and are not to be used in ordering. Prices subject to change without notice. TERMS ON PARTS, NET CASH.	Price per Part
		Parts for Class 80000 Machines	
AS 1 A	9	Cloth Plate, for Styles 80000 C and 80000 D	$4 50
		" " Screws No. 22574	06
		" " Screw, fillister head, No. 93	04
HA 1 A	33	Base Plate	4 00
HA 1 B	24	Base Plate Pin	05
HS 1 B	26	Bushing (ground, length over all 1¼ inches) for main shaft	55
HS 1 C	26	" (ground, length over all 3⅞ inches) for main shaft	1 00
2	9	Cloth Plate Slide, right, for Styles 80000 C and 80000 D	40
AS 2	9	" " " left, for Styles 80000 C and 80000 D	55
AS 2 A	9	Cloth Plate Slide, for Styles 80000 A and 80000 B	40
HA 2 A	21	" " Oil Hole Cover	20
AS 3	9	Cloth Plate, for Styles 80000 A and 80000 B	4 00
		" " Screws No. 22574	06
		" " Screw, fillister head, No. 93	04
AS 3 A	7	" " Extension Pin	25
AS 4	9	" " Extension	2 00
		" " " Screw No. 89	03
AS 4 A	6	Cloth Plate Extension Spring Latch	10
		" " " Screw No. 94	04
5	21	Collar, for main shaft	25
		" Screws No. 95	03
AS 6	8	Looper Eccentric Fork, with shoes	80
		" " " Clamp Screw No. 85	05
		" " " Set Screws No. 72	05
6 B	6	" " " Shoe (hardened and ground)	10
		" " " " Screw No. 94	04
AS 7	8	Feed Rocker, maximum length of stitch ½ inch	1 30
AS 7 A	8	" " maximum length of stitch ¾ inch	1 30
		" " Screws No. 88	03
8	28	" " Shaft (5 3/16 inches long, hardened and ground), sizes .407, .408, .410, .413 and .416	45
AS 9	8	Feed Bar	1 00
		" " Screws No. 88	03

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		Parts for Class 80000 Machines	
HA 9 B	13	Feed Bar Needle Guard (hardened)	55
		" " " " Screws No. 93 A	04
HA 10	26	Feed Prong	35
		" " Screws No. 93 A	04
11	28	Feed Bar Shaft (3 7/16 inches long, hardened and ground) sizes .407, .408 and .410	40
16	21	Feed Connection Ferrule (hardened and ground)	30
HA 17 A	19	Stitch Regulating Stud	25
18	21	Nut (hardened) for looper connection rod ball joint, No. 36 R, also for Nos. AS 70 A, 897 F and HA 1346 A	10
HA 18 A	21	Stitch Regulating Stud Nut (hardened)	10
20	23	Washer, for No. 36 R	03
HA 20 A	22	Stitch Regulating Stud Washer (7/32-inch hole)	05
HA 20 B	23	" " " Washer (¼-inch hole)	05
AS 22	4	Feed Dog, for Styles 80000 A, 80000 B, 80000 C and 80000 D	55
		" " Screws No. 93	04
AS 22 A	4	" " with separable center section	1 25
		" " Screw No. 93	04
AS 22 B	4	" " without separable center section	80
		" " Screw No. 93	04
AS 22 C	4	Center Section, for feed dog No. AS 22 A	40
AS 22 D	4	" " Screw	05
HA 23	26	Feed Bar Shoe (hardened and ground)	18
		" " " Screw No. 93 A	04
AS 24	4	Cloth Plate Edge Guide	30
AS 24 A	3	" " " " for Styles 80000 A and 80000 B	40
		" " " " Screw No. 25 CA	08
AS 24 B	8	Cloth Plate Edge Guide	1 00
AS 25	—	" " " " Screw	10
25 CA	19	Screw, for cloth plate edge guides Nos. AS 24 and AS 24 A	08
AS 26 X	4	Looper, for Styles 80000 A and 80000 C	1 00
AS 26 Y	4	" for Styles 80000 B and 80000 D	1 00
AS 29	8	" Rocker (hardened)	80
30	8	" " Frame (hardened)	1 00
		" " " Screw, left, No. 88	03
		" " " " right, No. 98	03
		" " " Spot Screw No. 96	03

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AS 31	7	Looper Rocker Shaft (length over all 3½ inches, hardened and ground)	60
AS 31 A	22	Thread Guiding Sleeve	25
AS 32	7	Looper Rock Shaft (length over all 1⅜ inches, hardened and ground)	30
33	21	Looper Rocker Stud (hardened)	35
34	21	" " " Nut	10
AS 35	7	Looper Connection Rod	55
36 A	19	Ball (hardened) for No. 36 L	30
36 B	30	Shell, for No. 36 L	60
		" Screws No. 97 A	04
36 E	19	Ball (hardened) for No. 36 R	35
36 F	30	Shell, for No. 36 R	60
		" Screws No. 97 A	04
36 G	23	Washer, for No. 36 R	10
‡36 L	30	Looper Connection Rod Ball Joint, left, complete	1 25
‡36 R	30	" " " " " right, complete	1 25
		" " " " " Screws No. 97A	04
37 L	21	" " " Nut, left thread	10
37 R	21	" " " " right thread	10
AS 38 A	7	Looper Eccentric (ground) for machines using needles sizes Nos. 12, 14, 16 or 18	60
AS 38 B	7	" " (ground for machines using needles sizes Nos. 8, 9, or 10.	60
		" " Screw No. 81	03
HA 41	30	Presser Foot Lifter (hardened) without handle	70
		" " " Screw No. HA 86	15
HA 41 A	10	" " " (hardened) with handle	2 00
		" " " Screw No. HA 86 A	15
HA 42	20	" " " Screw Pin (hardened)	12
42 A	20	Screw Pin, for hemming guide No. 897 A	10
HA 42 A	18	Presser Foot Lifter Roller Screw	15
HA 42 B	6	" " " Roller (hardened and ground)	30
AS 43	7	Feed Rocker Eccentric (ground) for making 3½ to 5 stitches per inch	70
AS 43 A	7	" " " (ground) for making 1½ to 2½ stitches per inch	70
AS 43 B	7	" " " (ground) for making 2 to 4½ stitches per inch	70
		" " " Spot Screw, No. 96	03
		" " " Set Screw, No. 95	03

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HS 43 P	30	Feed Cam (hardened and ground)	45
HA 43 X	30	" " (hardened and ground)	45
		Feed Cam Screw No. 96	03
AS 44	9	Needle Lever	2 80
47	21	" " Stud Nut	20
48	23	" " " Washer	03
HA 50	27	Needle Bar (hardened and ground)	1 60
		" " Set Screws No. 94	04
AS 51	6	" " Connection	55
HA 54 A	29	" " Link (hardened) also for No. AS 122	90
HA 56	21	Needle Clamp Nut (hardened)	15
HA 58 C	23	Needle Bar Thread Tension Ferrule (13/32-inch hole)	10
HA 58 D	23	" " " " " (7/32-inch hole)	10
HA 58 F	23	" " " " Spring	04
AS 59	7	Needle Lever Eccentric (2.204-inch throw)	1 50
AS 59 A	7	" " " (1.771-inch throw)	1 50
		" " " Spot Screw No. 81	03
		" " " Set Screw No. 95	03
HA 59	33	Hand Wheel (diameter of belt groove, 5½ inches)	2 00
		" " Set Screw No. HA 95	06
		" " Spot Screw No. HA 81	05
HA 59 C	24	Needle Lever Eccentric Pin	04
†HA 60	27	Presser Bar (hardened and ground)	1 15
HA 60 A	27	Presser Bar (hardened and ground) left	1 00
HA 60 B	27	" " (hardened and ground) right	90
†HA 61	24	" " Connection, for No. HA 60	20
		" " " Screw No. 90	04
HA 61 A	24	" " " for No. HA 60 A, also for No. HA 62 A	20
		" " " Screw No. 90	04
HA 61 B	30	Coiled Presser Spring Support	45
		" " " " Screw No. 95	03
HA 61 C	30	Presser Bar Guiding Fork	55
		" " " " Clamp Screw No. 74	05
HA 61 D	19	" " " " Set Screw	05
†HA 62	28	Presser Guide Bar (hardened and ground) for use with No. HA 60	75
†HA 62 A	28	" " " (hardened and ground) for presser foot No. AS 65 L	70

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		Parts for Class 80000 Machines	
HA 62 B	12	Presser Guide Bar (hardened and ground) for use with adjustable guiding block	1 00
HA 62 C	12	Presser Foot Guiding Block, adjustable	45
		Presser Foot Guiding Block Screw No. 303	08
HA 62 D	—	Nos. HA 62 B, HA 62 C and 303 assembled	1 50
†HA 63	31	Presser Spring, flat	60
HA 63 A	31	" " flat	65
HA 63 F	23	" " coiled	15
†HA 64	30	" " Rest, for use with presser spring No. HA 63	50
HA 64 A	30	" " " for use with presser spring No. HA 63 A	50
		" " " Screw No. 88 A	04
HA 64 B	24	Presser Foot Lifter Stop Pin	05
64 X	20	Presser Spring Regulator Screw Pin	20
HA 64 D	18	Foot Lift Lever Spring Pin	03
AS 65 A	2	Bottom, for presser foot No. AS 65 L	95
AS 65 B	2	Bottom, for presser foot No. AS 65 R	1 00
AS 65 C	2	Shank, for presser foot No. AS 65 L	50
		" Set Screws No. 88 A	04
		" Hinge Screws No. HA 65 L	05
HA 65 D	11	" for presser foot No. AS 65 S	30
		" Set Screws No. 88 A	04
		" Hinge Screw No. HA 65 E	08
HA 65 E	19	Hinge Screw, for presser foot No. AS 65 R	08
HA 65 L	19	" " for presser feet Nos. AS 65 L and AS 65 X-2	05
AS 65 L	2	Presser Foot, left, complete, for Styles 80000 A, 80000 B, 80000 C and 80000 D	1 60
AS 65 R	2	" " right, complete, for Styles 80000 A, 80000 B, 80000 C and 80000 D	1 45
AS 65 S	2	" " right, complete, for continuous chaining	1 45
AS 65 T	2	Bottom, for presser foot No. AS 65 S	1 00
†AS 65 X	1	Presser Foot, complete	6 40
†AS 65 X-1	1	Bottom, right, for presser foot No. AS 65 X	2 50
†AS 65 X-2	1	" left, for presser foot No. AS 65 X	2 50
†AS 65 X-3	1	Shank, for presser foot No. AS 65 X	50
		" Screws No. 88 A	04
†AS 65 X-4	1	Spring Support, for presser foot No. AS 65 X	30
		" " Screw No. 87	04

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		Parts for Class 80000 Machines	
†AS 65 X-5	23	Spring, for No. AS 65 X	10
†AS 65 Y	1	Presser Foot, complete, for continuous chaining	6 40
†AS 65 Z	1	Bottom, for presser foot No. AS 65 Y	2 50
AS 66	9	Main Shaft (hardened and ground)	3 00
HA 66 K	21	Key, for main shaft No. AS 66	08
HA 69	34	Spool Support	1 50
		" " Screw No. 81	03
HA 69 A	34	Base, for thread stand	90
		" Screw No. 22508	03
HA 69 B	34	Thread Rod	50
69 R	34	" " Extension	35
69 T	34	Spool Pin, for thread stand	20
69 U	24	Spool Support Connecting Pin, for thread stand	08
69 V	24	Thread Rod Extension Pin, for thread stand	06
AS 70	6	Looper Eccentric Sponge Holder	30
		" " " " Screw No. 94	04
AS 70 A	6	Feed Cam Sponge Holder	35
		" " " " Nut No. 18	10
72	18	Set Screw, for looper eccentric fork	05
73	18	" " for loopers, also for No. 897 A	05
HA 73 B	18	Screw, for thread eyelet No. HA 103 B	03
74	19	Clamp Screw, for presser bar guiding fork, also for No. 897 F	05
HA 74	26	Oil Tube Support	10
		" " " Screw No. 94	04
75 A	19	Screw, for feed rocker connection	04
77	18	" for needle bar link pin, also for Nos. AS 122 and AS 123	03
80 A	19	" for main shaft sponge hole	10
81	18	Spot Screw, for looper eccentrics, also for Nos. AS 59, AS 59 A and HA 69	03
HA 81	18	" " for hand wheel	05
82	19	Hemming Guide Stop Screw	08
85	19	Clamp Screw, for looper eccentric fork	05
HA 86	19	Screw, for presser foot lifter No. HA 41	15
HA 86 A	18	" for presser foot lifter No. HA 41 A	15
HA 86 B	22	Presser Foot Lifter Friction Washer	05
87	18	Screw, for throat plates, also for No. AS 65 X-4	04
88	18	" for feed rockers, also for Nos. AS 9, 30, AS 51, AS 130, AS 132 and HA 482 A	03
88 A	18	" for presser spring rest, also for Nos. HA 64 A, AS 65 C, HA 65 D and AS 65 X-3	04

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89	18	Screw for cloth plate extension	03
90	18	" for presser bar connections, also for Nos. AS 128, AS 129 and AS 134	04
92	19	" for cloth plate	04
93	19	Screw fillister head, for cloth plate, also for Nos. AS 22, AS 22 A, AS 113 and AS 416 A	04
93 A	19	" for feed bar needle guard, also for Nos. HA 10, HA 23, AS 127 and AS 130	04
94	19	" for cloth plate extension spring latch, also for Nos. 6 B, AS 51, AS 70, HA 74, AS 124 and AS 125	04
95	18	" for main shaft collar, also for Nos. AS 43, AS 43 A, AS 43 B, AS 59, AS 59 A, HA 61 B, AS 113, AS 122, AS 135 and AS 136	03
HA 95	18	Set Screw, for hand wheel	06
96	18	Spot Screw, for looper rocker frame, also for Nos. AS 43, AS 43 B, HA 43 X and HS 43 P	03
97 A	19	Screw, for shells, for looper connection rod ball joints	04
97 X	18	" for supporting feed dogs	05
98	18	Set Screw, for looper rocker frame, also for Nos. 424 and 482	03
HA 102 A	22	Thread Eyelet, for tension bracket No. AS 123	20
HA 103 B	22	" " for Nos. AS 135, AS 136 and AS 137	20
		" " Screw No. HA 73 B	03
HA 106 A	20	Tension Post, length over all 2 inches	25
AS 106 A	20	" " length over all 3¼ inches	30
107	21	" Spring Ferrule	06
108 A	21	" Nut	10
AS 109	23	" Disc (diameter 1¼ inch, 7/16-inch hole) hardened	06
HA 109 A	23	" " (15/16 inch diameter, ⅜-inch hole) hardened	06
110 A	23	" Spring (.036 inch diameter wire)	05
AS 112	3	Throat Plate	1 10
AS 112 A	3	" " for continuous chaining	1 30
		" " Screws No. 87	04
AS 112 B	3	Chain Support, for throat plate No. AS 112 A	15
AS 112 C	3	" " Screw	05

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†AS 113	8	Frame Thread Guide Holder	45
		" " " " Screw No. 93	04
AS 113 A	5	Frame Thread Guide	40
		" " " Screw No. 98	03
115 A	34	Wrench, for nuts Nos. 18, HA 18 A, 37 L, 37 R, HA 56 and 1280	15
HA 118	34	Thread Hook	10
118 B	34	Thread Tweezers (improved model)	20
AS 121	8	Feed Rocker Connection	1 15
		" " " Screws Nos. 75 A	04
AS 122	8	Looper Intermediate Lever	90
		" " " Screws No. 95	03
AS 123	8	Tension Bracket	1 25
		" " Screws No. 135	06
AS 124	5	Needle Thread Intermittent Nipper Spring, back	20
AS 125	5	" " Intermittent Nipper Spring, front	40
AS 126	23	" " Intermittent Nipper Spring Washer	05
AS 127	5	" " Intermittent Nipper Spring Operating Block Support Bracket	55
		" " Intermittent Nipper Spring Operating Support Bracket Screws No. 93 A	04
AS 128	5	" " Intermittent Nipper Spring Operating Block Support	30
AS 129	5	" " Intermittent Nipper Spring Operating Block	20
		" " Intermittent Nipper Spring Operating Block Screw No. 90	04
AS 130	5	Frame Pull-off Support	45
		" " " Screw No. 93 A	04
AS 130 A	7	" " " Guiding Pin	05
AS 131	5	" Thread Pull-off	15
		" " " Screw No. 88	03
AS 132	5	Needle Lever Thread Pull-off Support	40
		" " " " " Screws No. 22526	05
AS 133	5	Needle Lever Thread Pull-off	20
		" " " " Screw No. 88	03
AS 134	5	Needle Bar Thread Tension Support	60
		" " " " " Screw No. 90	04
135	19	Screw, for tension bracket, also for No. 897 B	06

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AS 135	6	Frame Thread Eyelet Support, upper	40
		" " " " Screw No. 95	03
136	19	Clamp Screw, for needle bar bushing	08
AS 136	6	Frame Thread Eyelet Support, lower	35
		" " " " Screw No. 95	03
AS 137	6	Needle Lever Thread Eyelet Support	30
AS 138	5	Frame Thread Guiding Wire	10
AS 139	7	Looper Intermediate Lever Shaft (hardened and ground)	45
AS 141	7	Oil Tube, for feed eccentric	40
154	6	Needle Lever Washer	05
156	19	" " Ball (hardened)	40
303	—	Presser Foot Guiding Block Screw	08
413	34	Oil Can	10
AS 416 A	9	Foot Lift Lever Extension	50
		" " " " Screws No. 93	04
HA 416 X	31	Foot Lift Lever Casting	50
420	20	" " " Stud	20
HA 421	34	" " Chain	30
422	34	" Treadle	20
423	34	" " Rest	15
424	34	" " Pin	05
		" " " Screw, No. 98	03
HA 426	23	" Lift Lever Spring	05
482	21	Looper Intermediate Lever Shaft Collar	25
		" " " " " Screw No. 98	03
HA 482 A	21	Presser Bar Collar, also for No. AS 65 X	20
		" " " Screw No. 88	03
897 A	8	Hemming Guide	3 00
897 B	6	Edge Guide, for Styles 80000 C and 80000 D	60
		" " Screws No. 135	06
897 C	19	Screw, for hemming guide	25
897 E	23	Spring, for hemming guide	05
897 F	6	Hemming Guide Lever	35
		" " " Screw No. 74	05
HA 1217	31	Needle Lever Connection, complete (includes Nos. 15430C, 15430 D, 15430 E, 15430H, 15430K, 15430L HA 15431, HA 15431F)	3 75

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		Parts for Class 80000 Machines	
1230	—	Needle Lever Connection Bearing, upper, complete for No. 80016 (includes Nos. 1230A, 1230B, 1230D and 22586A) . .	1 00
‡1230 A	—	" " " Bearing, upper, without spring pin or screw . . .	85
1230 B	—	" " " Bearing Spring	05
1230 D		" " " Bearing Spring Pin	06
1275	27	" " Stud (hardened and ground) internal oiling, with screw, standard size	1 50
1275 A	—	" " " (hardened and ground) internal oiling, without end screw, standard size	1 45
1275 B	—	" " " (hardened and ground) internal oiling, with end screw, extra size on frame end (specify the number of thousandths of an inch larger than standard size) made only to order	1 75
1275 C	—	" " " (hardened and ground) internal oiling, with end screw, extra size on lever end (specify the number of thousandths of an inch larger than standard size) made only to order	1 75
1275 D	—	" " " (hardened and ground) internal oiling, with end screw, extra size on both ends (specify the number of thousandths of an inch larger on each end than standard size) made only to order	2 00
1275 E	—	" " " (hardened and ground) internal oiling, without end screw, extra size on frame end (specify the number of thousandths of an inch larger than standard size) made only to order	1 70

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1275 F	—	Needle Lever Stud (hardened and ground) internal oiling, without end screw, extra size on lever end (specify the number of thousandths of an inch larger than standard size) made only to order	1 70
1275 G	—	" " " (hardened and ground) internal oiling, without end screw, extra size on both ends (specify the number of thousandths of an inch larger on each end than standard size) made only to order	1 95
		" " " Screw No. 22586	05
1280	21	" " Bolt Nut	10
‡1286	24	" Bar Link Pin (hardened and ground, length over all 5/8 inch) complete, internal oiling	30
		" " " " Screw No. 22560	03
‡HA 1286	6	" " " " (hardened and ground, length over all 5/8 inch) complete internal oiling	35
HA 1346 A	20	Tension Post (length over all 1 1/16 inches) for use with hardened steel ferrule No. HA 1347 A	10
HA 1347 A	22	" " Ferrule (length over all 9/32 inch, hardened) for use with tension post No. HA1346A	10
HA 1348	22	" " " (length over all 3/8 inch, hardened) for use with tension posts Nos. HS 106 and HA 106 A	15
HA 1349	22	" Sleeve, for use with Nos. HS 106 and HA 106 A	10
6042	20	Needle Lever Bolt	20
HA 12873	22	Bushing (ground) for needle bar bearing	30
		" Screw No. 136	08
15430 C	21	Needle Lever Connection Tube Nut, upper, left thread	10

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		Parts for Class 80000 Machines	
15430 D	21	Needle Lever Connection Tube Nut, lower, right thread ..	10
15430 E	31	Needle Lever Connection Bearing, upper, for No. HA 1217	70
		" " " " Screws No. 22587	05
15430 H	21	" " " Oil Reservoir Cover, for No. HA 1217	25
15430 K	23	" " " Oil Reservoir Leather Washer	02
HA 15431	31	" " " Bearing, lower.....	1 45
		" " " " Screws No. 22587	05
HA 15431 F	31	" " " Tube, with oil reservoir, for No. HA 1217.....	1 10
21202	—	Screw Driver, round steel (diameter 7/32 inch, length over all 10 3/16 inches)..	40
21204	—	" " round steel (diameter ¼-inch, length over all 15 inches).....	60
21388	—	Wrench, for nuts Nos. 18, HA 18 A, 37 L, 37 R, HA 56 and 1280.....	15
21388 B	—	" (½-inch, 4⅜ inches long, hardened) for nuts Nos. 15430 C and 15430 D.....	20
HA 21681	31	Machine Bed Screw.....	45
22508	19	Screw, for base, for thread stand.....	03
22526	18	" for needle lever thread pull-off support....	05
22560	18	" for needle bar link pins.....	03
22574	18	" for cloth plate.....	06
22586	18	" for needle lever stud.....	05
22587	19	" for needle lever connection bearings.....	05
80016	31	Needle Lever Connection, complete (includes Nos. 1230, 15430 C, 15430 D, 15430 L, HA 15431 and 80031	3 45
80031	—	" " " Tube, without oil reservoir, for No. 80016...	80

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		Parts for Class 81000 Machines	
HA 1 A	33	Base Plate	$4.00
HA 1 B	24	" " Pin	05
HS 1 B	26	Bushing (ground, length over all 1¼ inches) for main shaft	55
HS 1 C	26	" (ground, length over all 3⅞ inches) for main shaft	1 00
HS 1 D	26	" (ground, length over all 15/16 inches) for main shaft	50
HS 2	33	Cloth Plate	4 00
		" " Screw, headless, No. 89	03
		" " " fillister head, No. 93	04
		" " " long, No. 22574	06
HA 2 A	21	" " Oil Hole Cover	20
HS 3	33	" " Extension	2 00
		" " " Screw, No. 89	03
HS 3 A	28	" " " Pin	35
HS 4 A	32	Spreader Bracket	3 00
		" " Screw, headless, No. 95	03
		" " Screws, fillister head, No. 318	15
HS 4 X	17	Cast-off Wire	35
		" " Screw, No. 94	04
		" " Adjusting Screw, No. 82	08
5	21	Collar, for main shaft	25
		" Screws, No. 95	03
HS 5	32	Looper Carrier Bracket	1 30
		" " " Screws, No. 318	15
HS 6	32	Spreader Lever	1 85
		" " Clamp Screw, No. 74 A	15
HS 7	32	Feed Rocker	1 30
		" " Screws, No. 88	03
8	28	" " Shaft (5 3/16 inches long, hardened and ground) sizes, .407, .408, .410, .413 and .416	45
HS 8 A	32	Looper Lever	2 00
		" " Clamp Screw, No. 74 A	15
HS 9	32	Feed Bar	90
		" " Screws, No. 88	03

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HA 9 B	13	Feed Bar Needle Guard (hardened)	55
		" " " " Screw, No. 93 A	04
HA 10	26	Feed Prong	35
		" " Screws, No. 93 A	04
11	28	" Bar Shaft (3 7/16 inches long, hardened and ground) sizes .407, .408 and .410	40
HS 11 A	29	Looper Carrier Shaft Arm	70
		" " " " Screws, No. 95	03
HS 12	29	" Intermediate Lever	90
		" " " Screws, No. 95	03
HS 13	24	Cloth Plate Locking Pin	50
		" " " " Screw, No. 89	03
HS 14	24	" " Plunger	30
HS 14 A	23	" " " Spring	05
HS 15 A	30	Feed Rocker Eccentric	55
		" " " Screw, No. 81	03
HS 15 B	32	" " " Connection	1 15
		" " " " Screw, front, No. 22587	05
		" " " " Screw, rear, No. 22569	05
16	21	" " Connection Ferrule (hardened and ground)	30
HS 16 A	22	Take-up Lever Sliding Sleeve	15
HS 16 B	22	" " " " Bushing	20
HA 17 A	19	Feed Rocker Stud	25
HS 17 B	20	Take-up Lever Stud, small thread	25
HS 17 C	—	" " " large thread	25
18	21	Nut, for take-up lever stud, also for Nos. HS 36 R, HS 36 X, HS 36 Y, HS 36 Z and HA 1346 A.	10
HA 18 A	21	Feed Rocker Stud Nut	10
HS 19	27	Looper Intermediate Lever Shaft (hardened and ground)	45
20	23	Washer, for looper connection rod ball joint No. HS 36 Y	03
HA 20 A	22	Feed Rocker Stud Washer (7/32-inch hole) also for No. HS 17 B	05
HA 20 B	23	" " " " (¼-inch hole) also for No. HS 17 B	05
HS 21	28	Take-up Lever Stud	35
		" " " Screw, No. 98	03

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		Parts for Class 81000 Machines	
HS 22	15	Feed Dog, for Style 81000 A	55
HS 22 A	15	" " with teeth cut ten to the inch, for use with throat plate No. HS 112	75
		" " Screw, No. 93	04
HS 22 P	15	" " for Style 81000 B	70
		" " Screw, No. 93	04
HS 22 Q	15	" " complete, with teeth cut ten to the inch, for use with throat plate No. HS 112 Q	1 35
		" " Screw No. 93	04
HS 22 Q-1	15	" " including center and right-hand prong, for use with throat plate No. HS 112 Q	80
HS 22 Q-2	15	" " Left-hand Prong, for use with throat plate No. HS 112 Q	45
		" " Screws No. 87 A	05
HS 22 R	15	" " teeth cut ten to the inch, for use with throat plate No. HS 112 Q	80
		" " Screw No. 93	04
HA 23	26	Feed Bar Shoe (hardened and ground)	18
		" " " Screw No. 93 A	04
HS 24	17	Edge Guide, complete, for Styles 81000 A and 81000 B	80
		" " Screw No. 25 CA	08
HS 24 A	17	" " Tongue, for Styles 81000 A and 81000 B	40
		" " " Screw No. HS 24 C	05
HS 24 A'T	14	" " " (width ⅜-inch)	45
		" " " Screw No. HS 24 C	05
HS 24 B	17	" " without tongue	35
HS 24 C	18	Screw, for edge guide tongues	05
HS 24 D	17	Edge Guide, for use with rolling presser feet	35
HS 24 E	17	" " for use with rolling presser feet	35
HS 24 F	14	" " for carpet work	40
		" " Screw No. 25 CA	08
25 CA	19	Screw, for edge guides	08
HS 26	16	Looper, for Styles 81000 A and 81000 B	1 00
		" Screw No. 73 X	04
HS 26 A	16	Spreader, complete with loop retainer, for Styles 81000 A and 81000 B	1 25
		" Screws No. 73 X	04
HS 26 B	16	" Loop Retainer	20
HS 26 C	18	Screw, for spreader loop retainer	03

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		Parts for Class 81000 Machines	
HS 26 D	16	Looper, short, for three thread machines	1 20
HS 26 E	16	" for single thread machines	1 00
		" Screw No. 73 X	04
HS 26 H	16	Thread Take-up	40
		" " Screw No. 77	03
HS 27	22	Spreader Gear Shaft Bushing	20
28	18	Screw, for springs Nos. HS 65 G and HS 65 P-3	04
HS 28 A	28	Spreader Gear Shaft, eccentric	60
		" " " Screws No. 95	03
HS 29	29	Looper Carrier	1 20
		" " Screws No. 98	03
HS 29 A	29	Spreader Carrier	1 30
		" " Screws No. 98	03
HS 30	29	" Gear, upper	1 60
		" " Screws No. 98	03
HS 31	29	" " lower	2 00
†HS 32	27	Looper Carrier Shaft (hardened and ground) without key slots	45
HS 32 A	27	" " " (hardened and ground) with key slots	45
HS 32 K	21	" " " Key	06
†HS 33	27	Spreader Carrier Shaft (hardened and ground) without key slots	50
HS 33 A	27	" " " (hardened and ground) with key slots	50
HS 33 K	21	Spreader Carrier Shaft Key	06
†HS 34	29	" Lever and Looper Lever	60
		" " " " " Set Screw No. 96	03
		" " " " " Spot Screw No. 98	03
HS 35	28	" Connection Rod (length over all 8 5/32 inches)	55
HS 35 A	28	Looper Connection Rod (length over all 6 inches)	55
†HS 35 B	28	Spreader Connection Rod (length over all 4 inches)	20
†HS 35 C	28	" " " (length over all 3½ in.)	20
36 A	19	Ball (hardened), for No. 36 L	30
36 B	30	Shell, for Nos. HS 36 X and HS 36 Z	60
		" Screws No. 97 A	04
36 E	19	Ball (hardened) for Nos. 36 R, HS 36 X, HS 36 Y and HS 36 Z	35
36 F	30	Shell, for Nos. 36 R and 36 Y	60
		" Screws No. 97 A	04

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		Parts for Class 81000 Machines	
36 G	23	Washer, for No. HS 36 R	10
HS 36 H	22	" for No. HS 36 X	06
HS 36 I	22	" for No. HS 36 Y	06
HS 36 K	22	" for No. HS 36 Z	10
36 R	30	Spreader Connection Rod Ball Joint, right, complete	1 25
HS 36 X	30	" " " " " left, complete.	1 25
HS 36 Y	30	Looper Connection Rod Ball Joint, right, complete.	1 25
HS 36 Z	30	" " " " " left, complete..	1 25
37 L	21	Nut, left thread, for connection rods Nos. HS 35 A, HS 35 B and HS 35 C	10
37 R	21	" right thread, for connection rods Nos. HS 35, HS 35 A, HS 35 B and HS 35 C	10
HS 38	29	Looper Lever Eccentric	1 50
		" " " Set Screw No. 95	03
		" " " Spot Screw No. 81	03
HS 38 A	29	Spreader Lever Eccentric	1 50
		" " " Set Screw No. 95	03
		" " " Spot Screw No. 81	03
HS 40	26	Lower Thread Guide	20
		" " " Screw No. 89	03
HS 40 A	26	" " Guiding Pin	08
HA 41	30	Presser Foot Lifter (hardened) without handle	70
		" " " Screw No. HA 86	15
HA 41 A	10	" " " (hardened) with handle	2 00
		" " " Screw No. HA 86 A	15
42 H	—	Nut, for use with Screw No. 22569	10
HA 42	20	Presser Foot Lifter Screw Pin (hardened)	12
HA 42 A	18	" " " Roller Screw	15
HA 42 B	6	" " " " (hardened and ground)	30
HS 43 P	30	Feed Cam (hardened and ground)	45
HA 43 X	30	" " (hardened and ground)	45
		" " Screw No. 96	03
HS 44	33	Needle Lever	2 50
††45	31	" " Connection, with non-separable bearings, distance between centers, 4 11/16 inches	1 35
HS 46	28	Looper Lever Bushing	1 10
47	21	Needle Lever Stud Nut (hardened) also for No. HS 1276	20
48	23	" " " Washer	03
HS 48 A	22	Looper Lever Bushing Washer	10

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		Parts for Class 81000 Machines	
†49 A	19	Needle Lever Ball (hardened) for use with No. 45.	40
HA 50	27	" Bar (hardened and ground)	1 60
		" " Set Screws No. 94	04
HS 51	30	" " Connection	55
HS 52	25	" Lever Rolling Thread Guide, complete, with support	1 40
HS 52 A	25	" " " " Guide Support Screws, No. 22526	65
HS 52 B	24	" " " " Guide Axle	35
		" " " " Guide Axle Screw No. 22560	03
HS 52 C	26	" " " " Guide Wire	10
		" " " " Guide Wire Screw No. 88	03
HS 53	25	" Thread Rolling Thread Guide, complete with support	1 30
HS 53 A	25	" " " " Guide Support	65
		" " " " Guide Support Screw No. 98 A	04
HS 53 B	24	" " " " Guide Axle	35
		" " " " Guide Axle Screw No. 22560	03
HS 53 C	22	Needle Thread Rolling Thread Guide	25
HA 54 A	29	" Bar Link (hardened) also for No. HS 8 A	90
HA 56	21	" Clamp Nut (hardened)	15
HS 57	25	Looper Thread Tension Guiding Pin Support	45
		" " " " Pin Support Screws No. 87 A	05
HS 58	25	" " " complete	1 20
HS 58 A	25	" " " Plate	50
HS 58 B	22	" " " Bearing	15
HA 58 C	23	" " " Ferrule (13/32-inch hole)	10
HA 58 D	23	" " " Ferrule (7/32-inch hole)	10
HA 58 F	23	" " " Spring	04
HS 58 G	24	" " " Controlling Spring Pin	03
HS 58 H	23	" " " Controlling Spring	05
HA 59	33	Hand Wheel	2 00
		" " Set Screw No. HA 95	06
		" " Spot Screw No. HA 81	05
HS 59 A	29	Needle Lever Eccentric (throw 2⅝ inches) for Style 81000 B	1 50

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HS 59 B	29	Needle Lever Eccentric (throw 2⅜ inches) for Style 81000 A	1 50
		" " " Set Screw No. 95	03
		" " " Spot Screw No. 81	03
HA 59 C	24	" " " Pin	04
†HA 60	27	Presser Bar (hardened and ground)	1 15
HA 60 A	27	Presser Bar (hardened and ground) left	1 00
HA 60 B	27	" " (hardened and ground) right	90
†HA 61	24	" " Connection, for use with Nos. HA 60 and HA 62	20
		" " " Screws No. 90	04
HA 61 A	24	" " " for use with Nos. HA 60 A and HA 62 A	20
		" " " Screws No. 90	04
HA 61 B	30	Coiled Presser Spring Support	45
		" " " " Screw No. 95	03
HA 61 C	30	Presser Bar Guiding Fork	55
		" " " " Clamp Screw No. 74	05
HA 61 D	19	" " " " Set Screw	05
†HA 62	28	" Guide Bar (hardened and ground) for use with presser foot No. HS 65 X	75
†HA 62 A	28	" " " (hardened and ground) for use with presser foot No. HS 65	70
HA 62 B	12	" " " (hardened and ground) for use with adjustable guiding block	1 00
HA 62 C	12	" Foot Guiding Block, adjustable	45
		" " " " Screw No. 303	08
HA 62 D	—	Nos. HA 62 B, HA 62 C and 303 assembled	1 50
†HA 63	31	Presser Spring, flat	60
HA 63 A	31	" " flat	65
HA 63 F	23	" " coiled	15
64 X	20	Presser Spring Regulator Screw Pin	20
†HA 64	30	" " Rest, for use with presser spring No. HA 63	50
		" " " Screw No. 88 A	04
HA 64 A	30	" " " for use with presser spring No. HA 63 A	50
		" " " Screw No. 88 A	04
HA 64 B	24	" Foot Lifter Stop Pin	05
†HS 64 C	24	Operating Pin, for use with presser foot No. HS65X	15
HA 64 D	18	Foot Lift Lever Spring Pin	03

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HS 65	11	Presser Foot, left, complete for Styles 81000 A and 81000 B	1 40
†HS 65 A	11	" " right, complete	2 50
†HS 65 B	11	" " right, complete, for carpet work	2 25
†HS 65 C	11	Bottom, for presser foot No. HS 65 A	1 20
†HA 65 D	11	Shank, for presser foot No. HS 65 A	30
		" Set Screws No. 88 A	04
		" Hinge Screws No. HA 65 E	08
HA 65 E	19	Presser Foot Hinge Screw, for Nos. HA 65 D and HS 65 P-2	08
HS 65 F	—	Screw, for tongues Nos. HS 65 Z, HS 65 ZA and HS 65 ZT	03
†HS 65 G	11	Presser Foot Spring	06
		" " " Screw No. 28	04
†HS 65 H	11	" " " Guide	10
		" " " " Screw No. 90	04
HS 65 I	11	Bottom, for presser foot No. HS 65	75
HS 65 K	11	Shank, for presser foot No. HS 65	50
		" Set Screw No. 88 A	04
		" Hinge Screw No. HA 65 L	05
HA 65 L	19	Hinge Screw, for presser foot No. HS 65	05
†HS 65 O	19	Hinge Screw, length over all ½ inch	05
HS 65 P	12	Presser Foot, right, for Styles 81000 A and 81000 B	3 10
HS 65 P-1	12	Bottom, for presser foot No. HS 65 P	1 70
HS 65 P-2	12	Shank, for presser feet Nos. HS 65 P and HS 65 S	60
		" Set Screw No. 88 A	04
		" Hinge Screw No. HA 65 E	08
HS 65 P-3	12	Presser Foot Spring, for presser feet Nos. HS 65 P and HS 65 S	06
		" " " Screw No. 28	04
HS 65 P-4	12	" " " Stud Screw, for presser foot spring No. HS 65 P-3	04
†HS 65 S	12	" " right, complete, without tongue	2 60
†HS 65 S-1	12	Bottom, for presser foot No. HS 65 S	1 70
†HS 65 X	10	Presser Foot, complete	6 40
†HS 65 X-1	10	" " Section, right	2 50
†HS 65 X-2	10	" " " left	2 50
†HS 65 X-3	10	Shank, for presser foot No. HS 65 X	50
		" Screw No. 88 A	04
†HS 65 X-4	10	Presser Foot Spring Support, for presser foot No. HS 65 X	30

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†HS 65 X-5	23	Presser Foot Spring, for presser foot No. HS 65 X	10
HS 65 Z	10	Tongue, for presser feet Nos. HS 65 A, HS 65 X-1	50
		" Screw No. HS 65 F	03
HS 65 ZA	12	" for presser foot No. HS 65 P	50
		" Screw No. HS 65 F	03
HS 65 ZT	12	" for presser foot No. HS 65 P for seaming bed covers	50
		" Screw No. HS 65 F	03
HS 66	33	Main Shaft (hardened and ground) for Style 81000 A	3 10
HS 66 P	33	" " (hardened and ground) for Style 81000 B	2 40
HA 66 K	21	Key, for main shafts	08
HS 67	31	Spreader Gear Guard, rear	40
		" " " Screw No. 94	04
		" " " " No. 98 A	04
HS 68	31	" " " front	30
		" " " Screw No. 98 A	04
HA 69	34	Spool Support	1 50
		" " Screw No. 81	03
HA 69 A	34	Base, for thread stand	90
		" Screw No. 22508	03
HA 69 B	34	Thread Rod	50
69 R	34	" " Extension	35
69 T	34	Spool Pin, for thread stand	20
69 U	24	Spool Support Connecting Pin, for thread stand	08
69 V	24	Thread Rod Extension Pin, for thread stand	06
HS 70	26	Sponge Holder, for feed bar No. HS 9	30
HS 70 A		" for No. HS 70	10
HS 71	24	Looper Thread Tension Bearing Pin	30
72	18	Screw, for lower thread pull-off	05
HS 72 A	21	Looper Thread Tension Bearing Pin Collar	10
		" " " Bearing Pin Collar Screw, No. HA 73 B	03
HA 73 B	18	Screw, for looper thread tension bearing pin collar, also for Nos. HS 100 C, HS 100 F, HS 102 and HS 103 A	03
73 X	18	Set Screw, for loopers and spreaders	04
74	19	Screw, for presser bar guiding fork No. HA 61 C	05
HA 74	26	Oil Tube Support	10
		" " " Screw No. 94	04

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74 A	21	Screw, for spreader lever, also for No. HS 8 A	15
HS 75	26	Spreader Carrier Shaft Oil Tube	30
75 A	19	Screw, for needle lever connection No. 45	04
HS 76	26	Oil Tube, for feed cam	35
77	18	Screw, for thread take-up No. HS 26 H	03
80	18	" for needle thread tension support	05
80 A	19	" for main shaft sponge hole	10
81	18	Spot Screw, for feed rocker eccentric No. HS 15 A, also for Nos. HS 38, HS 38 A, HS 59 A, HS 59 B, HA 59 and HA 69	03
HA 81	18	Spot Screw, for hand wheel	05
82	19	Adjusting Screw, for cast-off wire	08
HS 82	—	Lower Thread Pull-off Adjusting Screw	10
HA 86	19	Screw, for presser foot lifter No. HA 41	15
HA 86 A	18	" for presser foot lifter No. HA 41 A	15
HA 86 B	22	Presser Foot Lifter Friction Washer	05
87	18	Screw, for throat plates	04
87 A	18	" for feed dog prong No. HS 22 Q-2, also for Nos. HS 57 and HS 102 Q	05
88	18	" for feed rocker, also for Nos. HS 9, HS 51, HS 52, HS 53, HS102 P and HA 482 A	03
88 A	18	" for presser spring rest No. HA 64, also for Nos. HA 64 A, HA 65 D, HS 65 P-2, HS 65 K and HS 65 X-3	04
89	18	" headless, for cloth plate, also for Nos.. HS 3, HS 40, HS 103 and HS 113	03
90	18	" for looper intermediate lever, also for Nos. HA 60, HA 60 A, HA 62, HA 62 A, HS 65 H, HS 112 A, and HS 416 A	04
93	19	" fillister head, for cloth plate, also for Nos. HS 22, HS 22 A, HS 22 P, HS 22 Q, HS 22 R, HS 113 and HS 416 A	04
93 A	19	" for feed bar needle guard, also for Nos. HA 10, HA 23 and HS 65 V-4	04
94	19	" for cast-off wire, also for Nos. HS 51, HS 67, HA 74 and F 149	04
95	18	" for spreader bracket, also for Nos. HS 11 A, HS 12, HS 38, HS 38 A, HA 59, HS 59 A, HS 59 B, HA 61 B, HS 111 and HS 113 A	03
HA 95	18	Set Screw, for hand wheel	06

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96	18	Screw, for feed cam, also for Nos. HS 34, HS 43 P, HA 43 X and HS 101 Y	03
97 A	19	" for shells Nos. 36 B and 36 F	04
97 X	18	Supporting Screw, for feed bar	05
98	18	Screw, for looper carrier, also for Nos. HS 29 A, HS 30, HS 34, HS 102, 422 and 482	03
98 A	18	" for spreader gear guards, also for No. HS 53	04
HS 100	25	Needle Thread Tension, complete	2 70
HS 100 A	20	" " " Thread Roll Stud	30
HS 100 B	22	" " " Thread Roll	25
HS 100 C	22	" " " Thread Roll Collar	15
		" " " Thread Roll Collar Screw, No. HA 73 B	03
HS 100 D	20	" " " Disc Stop Screw, also for No. HS 57	10
HS 100 E	25	" " " Support, complete with thread eyelet	1 00
		" " " Support Screw No. 80	05
HS 100 F	—	" " " Thread Eyelet	40
		" " " Thread Eyelet Screw No. HA 73 B	03
HS 101 Y	30	Take-up	1 30
		" Screw No. 96	03
HS 102	32	" Lever Support	1 50
		" " " Screw No. 318	15
HA 102 A	22	Thread Eyelet, for Nos. HS 102 and HS 102 P	20
HS 102 P	32	Lower Thread Tension Bracket	1 05
		" " " Bracket Screw No. 318	15
HS 102 Q	22	" " Rolling Thread Guide, for No. HS 102 P	15
		" " " " Guide Screw No. 87 A	05
HS 103	28	" " Eyelet Support	40
		" " " Support Screw No. 89	03
HS 103 A	25	" " " for No. HS 103	45
		" " " Screw No. HA 73 B	03
HA 103 B	22	" " " Bushing, for Nos. HS 100 F and HS 103 A	20
		" " " Bushing Screw No. 77	03
HS 104	32	Take-up Lever	1 00

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		Parts for Class 81000 Machines	
HS 105	25	Lower Thread Pull-off	85
		" " " Screw No. 72	05
HS 105 A	20	" " " Screw Pin	20
HS 105 B	25	" " " Guide	45
HS 105 C	22	" " " Roll	10
HS 105 D	21	" " " Screw Pin Nut	10
HS 106	20	Tension Post (length over all 2½ inches) for three thread machines	30
HA 106 A	20	" " (length over all 2 inches)	25
107	21	" Spring Ferrule	06
108 A	21	" Nut	10
109	23	" Disc (15/16-inch diameter, ¼-inch hole) hardened	05
HA 109 A	23	" " (15/16-inch diameter, ⅜-inch hole) hardened	06
HS 109 B	22	" " (1¼-inch diameter, ⅜-inch hole) hardened	10
HS 110	23	" Spring (.048-inch diameter wire) for needle thread	05
110 A	23	" " (.036-inch diameter wire) for looper thread	05
HS 110 B	23	" " (.059-inch diameter wire) for needle thread	05
HS 111	26	Frame Needle Thread Wire	30
		" " " Wire Screw No. 95	03
HS 112	13	Throat Plate, for Style 81000 A	1 35
		" " Screw No. 87	04
HS 112 A-12	13	" " Needle Guard, for machines using No. 12 or smaller needles	45
		" " Needle Guard Screw No. 90	04
HS 112 A-16	13	" " " " for machines using No. 14 or 16 needles	45
		" " " " Screw No. 90	04
HS 112 P	13	" " for Style 81000 B	1 35
HS 112 Q	14	" " for seaming mattress ticks	1 55
HS 112 R	14	" " for seaming carpets	1 55
		" " Screws No. 87	04
HS 113	26	Frame Needle Rolling Thread Guide Pin Support	40
		" " " " Guide Pin Support Screw No. 93	04

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		Parts for Class 81000 Machines	
HS 113 A	26	Frame Needle Thread Rolling Thread Guide Pin, eccentric	40
		" " Thread Rolling Thread Guide Pin, Screw No. 89	03
HS 113 B	24	" " Thread Rolling Thread Guide Axle	45
		" " Thread Rolling Thread Guide Axle Screw No. 98	03
HS 113 C	22	" " Thread Rolling Thread Guide	30
115 A	34	Wrench, for nuts Nos. 18, HA 18 A, 37 L, HA 56, 74 A and 1280	15
116	34	" for nut No. HS 105 D	10
HA 118	34	Thread Hook	10
118 B	34	" Tweezers (improved model)	20
136	19	Clamp Screw, for needle bar bushing	08
F 149	26	Binding Tension, complete, for binding carpets	1 75
		" " Screw No. 94	04
154	6	Needle Lever Washer	05
156	19	" " Ball (hardened) also for Nos HS 6 and HS 8 A	40
303	—	Screw, for presser foot guiding block	08
318	19	" for spreader brackets, also for Nos. HS 5, HS 102 and HS 102 P	15
413	34	Oil Can	10
HS 416 A	31	Foot Lever Extension, with thread guiding ring	60
		" " " Screws No. 93	04
HS 416 B	—	Thread Guiding Ring, for No. HS 416 A	30
		" " " Screw No. 90	04
HA 416 X	31	Foot Lift Lever Casting	50
420	20	" " " Stud	20
HA 421	34	" " Chain	30
422	34	" Treadle	20
423	34	" " Rest	15
424	34	" " Pin	05
		" " " Screw No. 98	03
HA 426	23	" Lift Lever Spring	05
482	21	Looper Intermediate Shaft Collar	25
		" " " " Screw No. 98	03
HA 482 A	21	Presser Bar Collar, also for No. HS 65 X	20
		" " " Screw No. 88	03
525	20	Cloth Plate Plunger Stud	10

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		Parts for Class 81000 Machines	
1216	31	Spreader Lever and Looper Lever Connection, complete (includes Nos. 15430, 15430 C, 15430 D, 15430 E, 15430 F, 15430 H, 15430 K and 15430 L)	3 00
1216 B	—	" " " Looper Lever Connection, complete (includes Nos. 1230, 1230 C, 15430 C, 15430 D, 15430 L and 15430 M)	2 30
HA 1217	31	Needle Lever Connection, complete (includes Nos. 15430 C, 15430 D, 15430 E, 15430 H, 15430 K, 15430 L, HA 15431 and HA 15431 F)	3 75
1230	—	Spreader Lever and Looper Lever Connection Bearing, upper (includes Nos. 1230 A, 1230 B, 1230 D and 22586 A)	1 00
‡1230 A	—	" " " Looper Lever Connection Bearing, upper, without spring, pin or guiding screw	85
1230 B	—	" " " Looper Lever Bearing Spring.	05
1230 C	—	" " " Looper Lever Tube (length over all 2 15/16 inches)	30
1230 D	—	" " " Looper Lever Spring Pin	06
1275	27	Needle Lever Stud (hardened and ground) internal oiling, with screw, standard size	1 50
1275 A	—	" " " (hardened and ground) internal oiling, without screw, standard size	1 45
1275 B	—	" " " (hardened and ground) internal oiling, with screw, extra size on frame end (specify the number of thousandths of an inch larger than standard size) made only to order	1 75
1275 C	—	" " " (hardened and ground) internal oiling, with screw, extra size on lever end (specify the number of thousandths of an inch larger than standard size) made only to order	1 75

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		Parts for Class 81000 Machines	
1275 D	—	Needle Lever Stud (hardened and ground) internal oiling, with screw, extra size on both ends (specify the number of thousandths of an inch larger on each end than standard size) made only to order	2 00
1275 E	—	" " " (hardened and ground) internal oiling, without screw, extra size on frame end (specify the number of thousandths of an inch larger than standard size) made only to order....	1 70
1275 F	—	" " " (hardened and ground) internal oiling, without screw, extra size on lever end (specify the number of thousandths of an inch larger than standard size) made only to order....	1 70
1275 G	—	" " " (hardened and ground) internal oiling, without screw, extra size on both ends (specify the number of thousandths of an inch larger on each end than standard size) made only to order	1 95
		" " " Screw No. 22586.....	05
HS1276	27	Spreader Lever and Looper Lever Stud (hardened and ground)	1 75
		" " " Looper Lever Stud Screw No. 22586	05
1280	21	Needle Lever Bolt Nut.....	10
†1286	24	" Bar Link Pin (hardened and ground, length over all 5/8 inch) complete, internal oiling	30
		" " " " Screw, upper, No. 78.....	03
		" " " " " lower, No. 77.....	03

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		Parts for Class 81000 Machines	
†HA 1286	6	Needle Bar Link Pin (hardened and ground, length over all 7/8 inch) complete, internal oiling	35
		" " " " Screw, upper, No. 78	03
		" " " " " lower, No. 77	03
1346	20	Tension Post, length over all 1 11/16 inches, for use with hardened steel ferrule No. 1347	20
HA 1346 A	20	" " (length over all 1 1/16 inches) for use with hardened steel ferrule No. HA 1347 A	10
1347	21	Tension Post Ferrule (length over all 5/16 inch, hardened) for use with tension post No. 1346	08
HA 1347 A	22	" " Ferrule (length over all 9/32 inch hardened) for use with tension post No. HA 1346 A	10
HA 1348	22	" " Ferrule (length over all 3/8 inch, hardened) for use with tension post Nos. HS 106 and HA 106 A	15
HA 1349	22	" Sleeve, for use with Nos. HS106 and HA 106 A	10
6042	20	Needle Lever Bolt	20
†7940	30	Looper Intermediate Lever Connection	70
HA 12873	22	Bushing (ground) for needle bar bearings	30
		" Screw No. 136	08
15430	31	Spreader Lever and Looper Lever Connection Bearing, lower, for No. 1216	75
		" Lever and Looper Lever Connection Bearing Screws No. 22587	05
15430 C	21	" Lever and Looper Lever Connection Tube Nut, upper, left thread	10
15430 D	21	" Lever and Looper Lever Connection Tube Nut, lower, right thread	10
15430 E	31	" Lever and Looper Lever Connection Bearing, upper, also for No. HA 1217	70
		" Lever and Looper Lever Connection Bearing Screws No. 22587	05
15430 F	31	" Lever and Looper Lever Connection Tube, with oil reservoir	1 10

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		Parts for Class 81000 Machines	
15430 H	21	Spreader Lever and Looper Lever Connection Oil Reservoir Cover, also for No. HA 15431 F	25
15430 K	23	" Lever and Looper Lever Connection Oil Reservoir Leather Washer	02
15430 M	32	" Lever and Looper Lever Connection Bearing, lower, for No. 1216 B	75
HA 15431	31	Needle Lever Connection Bearing, lower	1 45
		" " " " Screws No. 22587	05
HA 15431 F	31	" " " Tube, with oil reservoir.	1 10
21202	—	Screw Driver, round steel (diameter 7/32-inch, length over all 10 3/16 inches)	40
21204	—	" " round steel (diameter ¼ inch, length over all 15 inches)	60
21388	—	Wrench, for nuts Nos. 18, HA 18 A, 37 L, 37 R, HA 56 and 1280	15
21388 B	—	" (½-inch 4⅜ inches long, hardened) for nuts Nos. 15430 C and 15430 D	20
HA 21681	31	Machine Bed Screw	45
22508	19	Screw, for base, for thread stand	03
22526	18	" for needle lever rolling thread guide support	05
22560	18	" for needle lever rolling thread guide axle, also for Nos. HS 36 B, HS 102, HS 113 B, 1286 and HA 1286	03
22569	19	" for feed rocker eccentric connection	05
22574	18	" for cloth plates	06
22586	18	" for needle lever studs, also for No. HS 1276	05
22587	19	" for feed rocker eccentric connection, also for Nos. 15430, 15430 E, 15430 M, HA 15431	05
80016	31	Needle Lever Connection, complete (includes Nos. 1230, 15430 C, 15430 D, 15430 L, HA 15431 and 80031	3 45
80031	—	" " " Tube, without oil reservoir for No. 80016	80