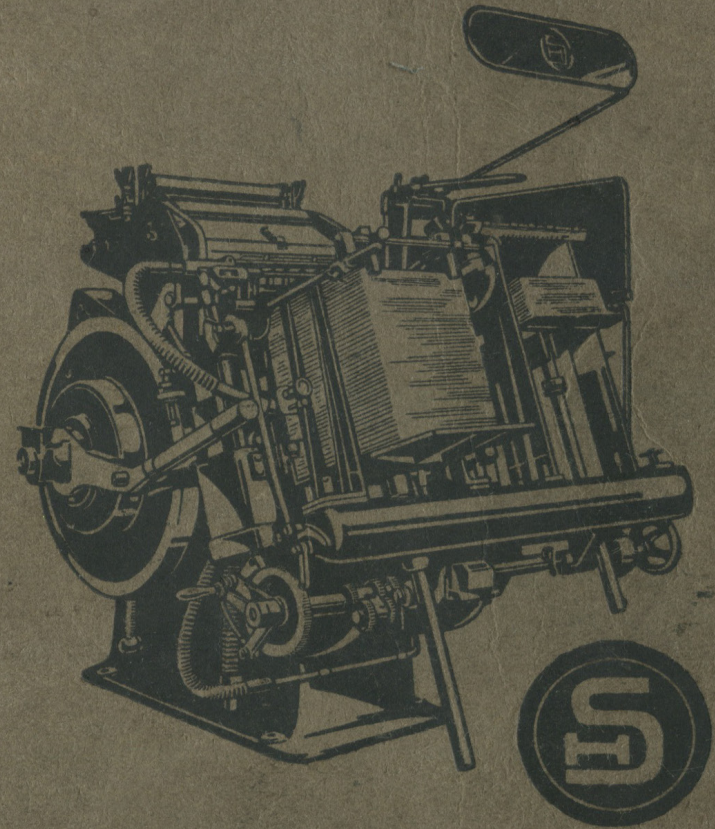


**THE SUPER-SPEED
HEIDELBERG
AUTOMATIC PLATEN**



INSTRUCTION BOOK
WITH ILLUSTRATIONS

The Heidelberg Automatic Platen Co. Ltd.,
43 Belvedere Road, London, S. E. 1

Foreword

The field of usefulness and the capacity of the Heidelberg Automatic Platen have been considerably increased by the addition of the register device to the machine.

The Super-Speed Heidelberg represents the very acme of perfection in automatic platens—the machine being suitable for the widest range of work up to its size. Ordinary jobbing printing or high-class four-colour work can be printed satisfactorily and profitably. All classes of paper can be fed on the Heidelberg with ease.

All adjustable parts on the Super-Speed Heidelberg bear instruction or indication plates, this greatly assisting the operator and saving much time. For instance, there is a scale and indicator for setting the paper feed from tissue to cardboard. This method saves much time, as, by instructing the operator in these devices, adjustments can be made quickly. The general usefulness of the Heidelberg is already known throughout the world for the production of all classes of work at a speed of 3,000 impressions per hour. By strengthening the base and the swinging platen, and by balancing all moving parts as well as strengthening the platen shaft and toggle drive, the speed of the Heidelberg has been increased to over 4,000 impressions per hour, according to the class of work and the paper being used. The quality of the printing at this speed is equally as good as formerly, and the machine is absolutely fool-proof in operation.

Hair-line register is obtained by means of the automatic lay gauges, which, in connection with the improved inking distribution makes it possible for three- or four-colour art work to be printed.

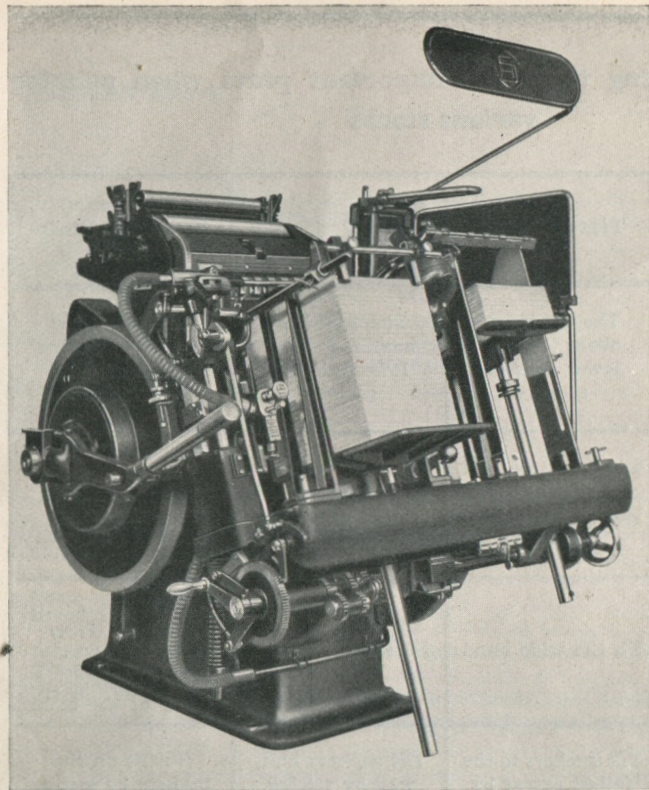
The instruction book and spare parts book have been separately bound for this model, in order that the former may be used by the operator and the latter by the office. It is hoped that the instruction book will assist in the correct handling of the machine thus enabling the Heidelberg to give its owner the maximum results.

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Table for adjusting the most important parts when printing various stocks

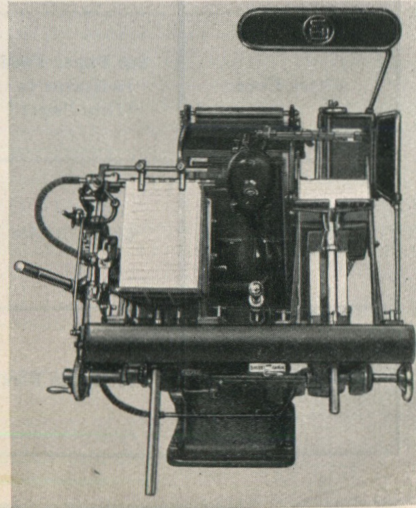
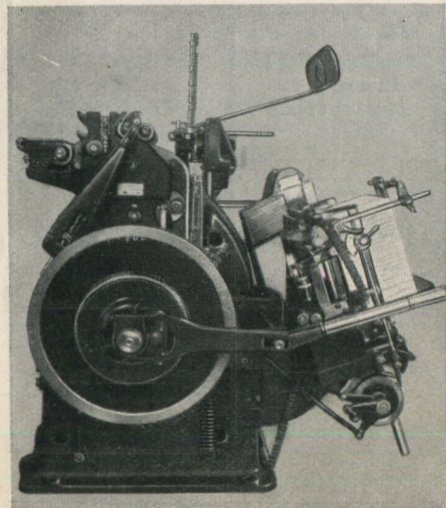
Adjustments	Tissue Paper	Ordinary Letter Paper	Cardboard (Postcard thickness)
Raise the Feed Table	The top sheet about $\frac{1}{4}$ " from lower edge of suckers	The top sheet approx. $\frac{1}{4}$ " from lower edge of suckers	The top sheet approx. $\frac{1}{4}$ " from lower edge of suckers
Blowing air on Feeder	Small quantity of blowing air and blower in highest position	Medium quantity of blowing air and blower in highest position	Full quantity of blowing air. Set blower lower in printing very heavy or smooth cardboard
Paper Separator	Fit the wide band	Fit the wide band	For printing small or thin cardboard use the narrow band. For large or heavy cardboard fit the springs instead of the band
Tilting the Sucker Bar	Tilt suckers to the fullest extent by setting indicator to "Thin Paper"	Tilt suckers half-way by setting indicator to middle of scale	No tilt on the suckers by setting indicator to "Cardboard"
Paper Feed	Set Paper Feed Indicator to "Thin Paper"	Set Paper Feed Indicator to middle of scale	Set Paper Feed Indicator to "Cardboard"
Pump Stroke	Short Stroke	Medium Stroke	Maximum Stroke
Automatic Cut-out	Loosen the Screw	Screw tightened half-way	Tighten the Screw



Side View

Front View

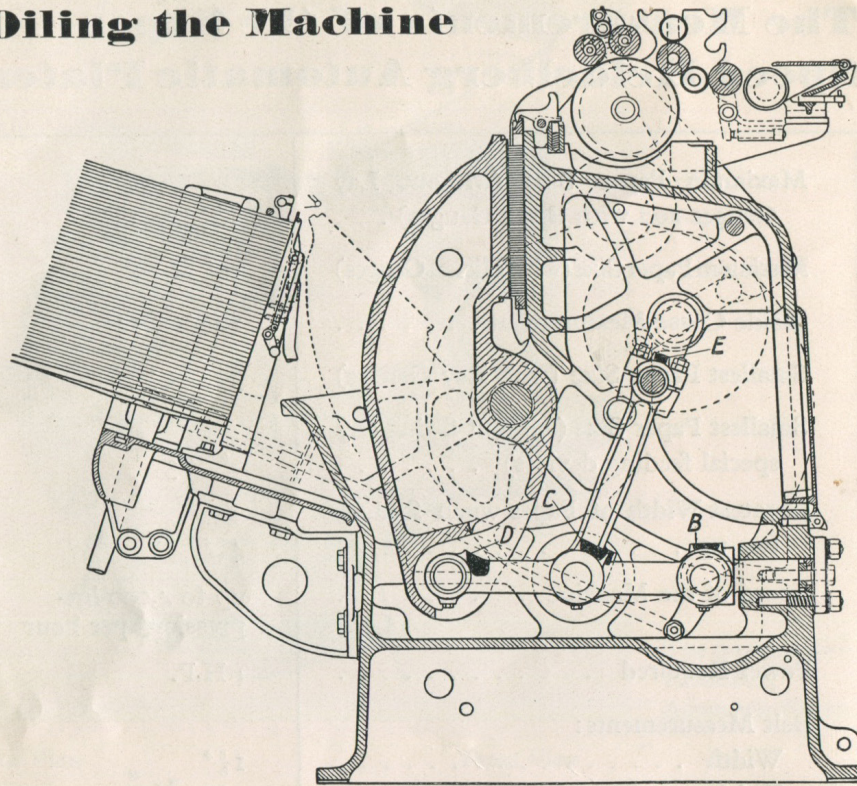
The Super-Speed
Heidelberg
Automatic Platen



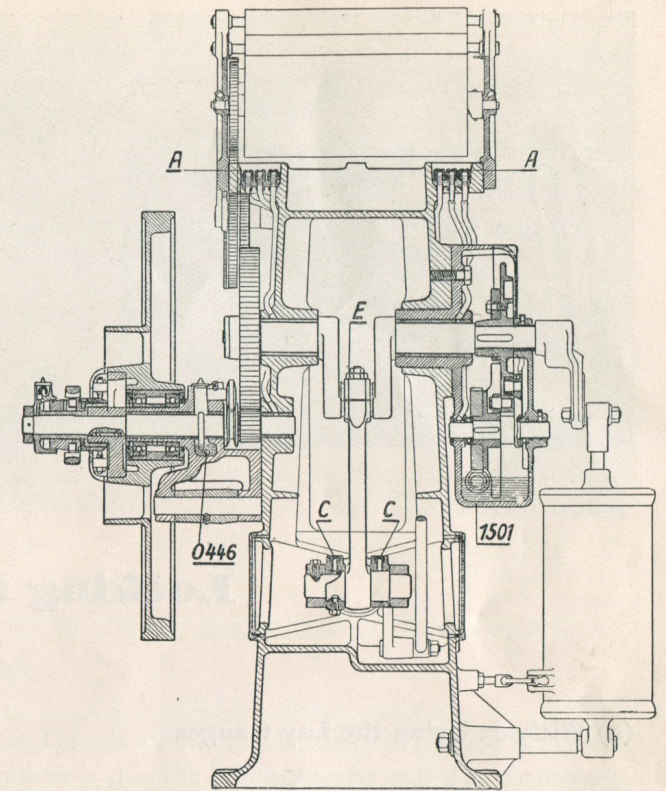
The Measurements of the Super-Speed Heidelberg Automatic Platen

Maximum Paper Size (without Lay Gauges and with Brass Gauges) . . .	10 $\frac{1}{4}$ " × 15"
Maximum Paper Size (with Nickel Gauges)	10" × 15"
Inside Chase Measurement	10 $\frac{1}{4}$ " × 14"
Smallest Paper Size (with Lay Gauges)	3 $\frac{1}{2}$ " × 3 $\frac{7}{8}$ "
Smallest Paper Size (without fitting any special feeding devices)	2" × 3 $\frac{1}{8}$ "
Greatest Width of Paper when feeding two-up	4 $\frac{3}{4}$ "
Speed of the Machine	up to 4,000 impressions per hour
Power Required	1 H.P.
Belt Measurements:	
Width	1 $\frac{5}{8}$ "
Thickness	3/16" 3/16"
Length	8' - 0 $\frac{1}{2}$ "
Revolutions of Fly-wheel to One Impression	6
Nett Weight of Machine without Motor	approx. 19 $\frac{3}{4}$ cwts.
Gross Weight	approx. 23 $\frac{3}{4}$ cwts.
Space Required:	
Length with motor on platform . . .	5' - 3"
Width	3' - 11 $\frac{1}{4}$ "
Height to the Inking Apparatus . . .	4' - 0 $\frac{3}{8}$ "

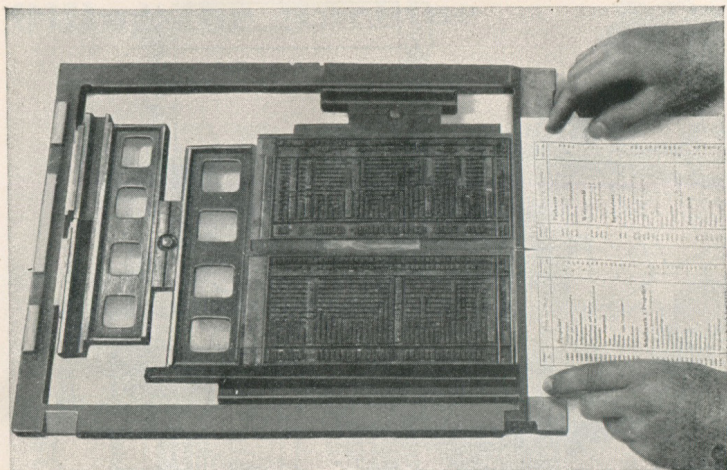
Oiling the Machine



The machine should be oiled regularly with the best machine oil. All parts requiring regular lubrication are recognisable by the oil cups or red-bordered oil holes. The fly-wheel main bearing is self-lubricating. It should be filled until the oil shows at the oil gauge between fly-wheel and base. The main drive runs in ball bearings. These ball bearings are sufficiently greased for one year's running when the machine is supplied—after this period the bearings may be oiled in the usual manner. This is done by taking off the guard 0435 by taking screw out, which is situated at the boss of the fly-wheel. Under the ink apparatus on the right and left sides are two lubricating containers (A). The containers must be filled regularly with good and thin oil. The wicks in the oil containers must be renewed as required.



These wicks must be of the best quality white wool, and must be large enough to carry a sufficient quantity of oil to the parts they supply. Inside the base are oil reservoirs on the toggle lever and the upper part of the impression rod as shown in the drawing B, D, C, E. The driving mechanism for the grippers runs in an oil bath. The case on the right side of the machine must be filled with oil until it runs out of the hole at the top of the case. It is advisable when running a new machine to keep well oiled for the first 50-100 hours. After a fortnight's running the machine may run at full speed. The pump piston must be oiled from time to time. The roller tracks must be kept free of all oil. From time to time it is preferable to put French chalk upon the roller tracks to prevent skidding and to secure even inking.

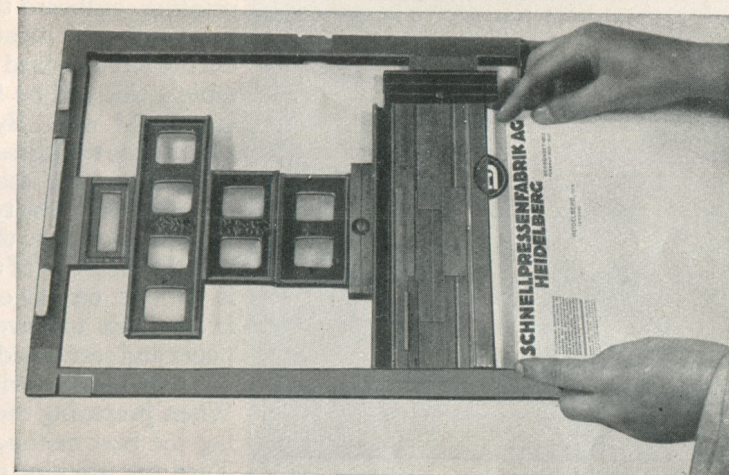


Locking the Forme

(a) Without Using the Lay Gauges

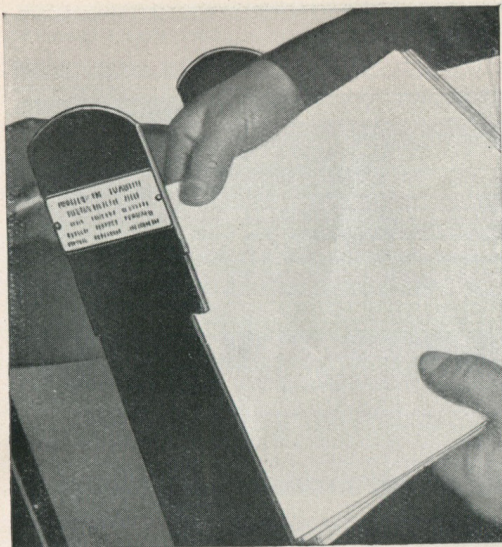
The chase is bevelled upon one side and this is the feeding edge. It is necessary for all jobs to have a margin of $\frac{1}{4}$ " on this edge. If a larger margin is required spacing material must be inserted between the type and the inside of chase. When locking the forme an allowance must be made for the gripper on the edge of the sheet. On the bevel edge of the chase there is a centre mark. This indicates the centre of the printing surface.

It is best to lock the forme so that this mark falls level with the middle line of the sheet (see illustration). Care must be taken that this mark is *only used when printing without lay gauges*. There is no need to lock the Heidelberg chase in the centre as is the case with parallel impression platens. The type can be locked in any position of the chase according to the size of the sheet and the arrangement of the type.



(b) With Lay Gauges

When working with Lay Gauges attention must be paid to what is printed in the first paragraph, under (a), but the forme must be locked at the bottom. When locking the forme at the bottom the margin is approximately $\frac{1}{50}$ " when using the Nickel Lay Marks, and approximately $\frac{1}{5}$ " when using the Brass Lay Marks. If a greater margin is required more spacing material must be inserted. Then the forme can be locked in the usual manner and put in the machine in the same way as on any other platen.



Packing the Platen

The packing is $\frac{1}{25}$ " thick. When printing cardboard the packing and the cardboard must be $\frac{1}{25}$ " thick. On the left standard of the delivery table a slot will be found which is exactly $\frac{1}{25}$ " wide. By using this as a gauge the thickness of the tympan packing can be ascertained. The composition of the tympan packing varies according to the class of work and the methods of the operator, as is the case on any other platen. It is advisable to have a quantity of paper and cardboard cut to the size of the platen printing surface. When preparing the tympan packing the best method is as follows:

Turn the machine until the platen is open. Then take one or two cover sheets $2\frac{1}{2}$ " larger than the platen surface on both sides, and hold in position at the bottom with the tympan rod. (Every time the bottom rod is taken out or replaced the lay spring must be removed.) The other packing sheets are then placed under the cover sheets and the spring guide replaced. The packing is then smoothed out with the top rod and the

latter pressed into its clips. The same is done with the rod on the fly-wheel side. Then the cover sheet is pulled over the right edge of the platen and the steel band holds it in position. Care must be taken that at the edge where the grippers open in the printing position, the tympan packing is absolutely smooth. Should there be waves in the packing this would prevent the sheet being pushed to the side lay. It is preferable to paste the edge of the cover sheet on right platen edge under the steel band provided. When printing without lay gauges, the paper can be cut off at the edge of the platen, as it is not necessary to turn this edge over to hold it down by the steel band.

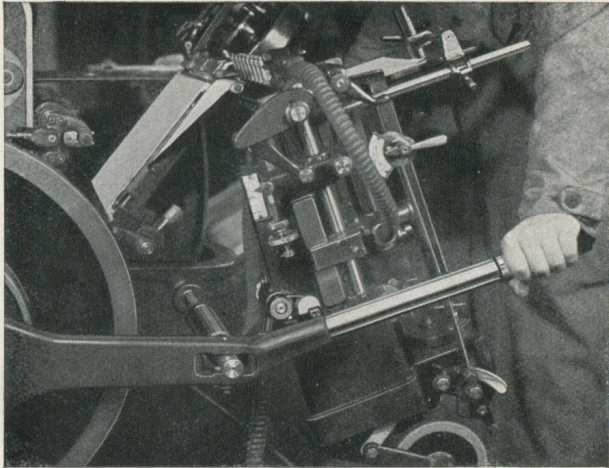
Smoothing the tympan packing



Make-ready

The make-ready is carried out in the same way as on an ordinary platen. In view of the fact that the gripper swings over the tympan packing, the make-ready must not be too bulky. The make-ready *must* lie *under* the top cover sheet. The tympan packing must be kept down to $\frac{1}{25}$ ", therefore after pasting up to make ready, reduce the tympan packing by the thickness of the make-ready. When printing a type forme, it is best to first make-ready behind the forme and if a second make-ready is necessary to make this upon the tympan. Further sheets can be taken away according to the thickness of the tympan packing. When printing half-tone blocks it is advisable to use a sheet of rubber. This must lie over the make-ready. When printing register work the best method is to put a tight damp sheet over the make-ready or over the sheet of rubber. This ensures that the sheet to be printed is not obstructed in any way. The ordinary hand make-ready method can be used or the mechanical chalk method, but only single-sided chalk etching foil should be used.

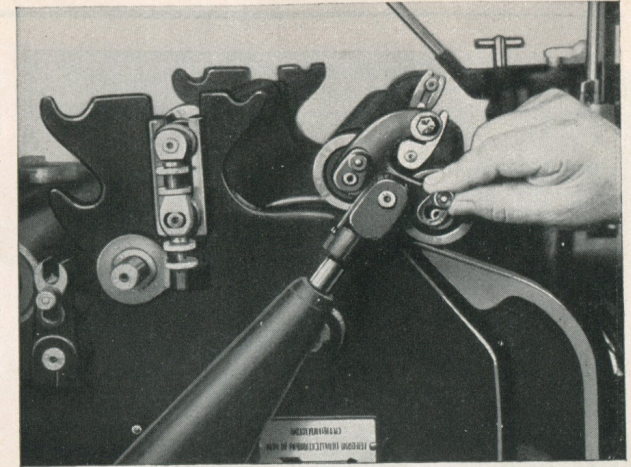
For preparing to run, see page 22, paragraph 2.



The Starting and the Stopping of the Machine

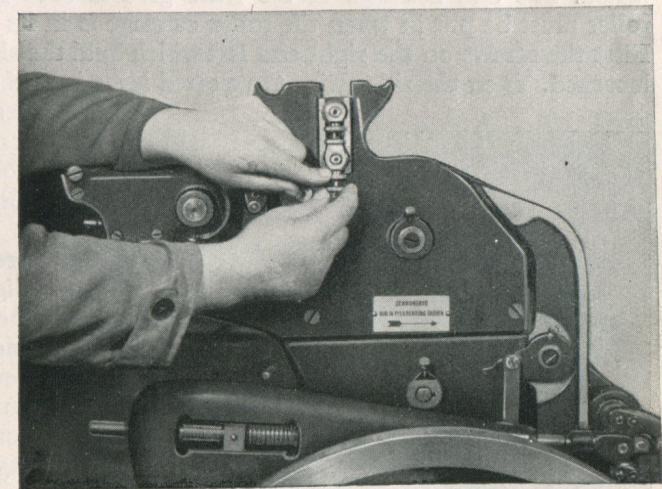
To start the machine the clutch handle is pushed to the left with the left hand. When stopping the machine turn the knurled part of the handle to the right. This causes the lever to move to the right automatically. The fly-wheel continues to run, but the machine stops immediately. In this manner the machine can be started or stopped in any position required. The machine can therefore be moved inch by inch.

When starting the machine care must be taken not to jerk the lever to the left. It should be noted that the machine is fitted with a friction clutch, which, as with every clutch of this type, must be engaged gently. It is advisable to allow the clutch to slip for the first two or three revolutions of the fly-wheel.



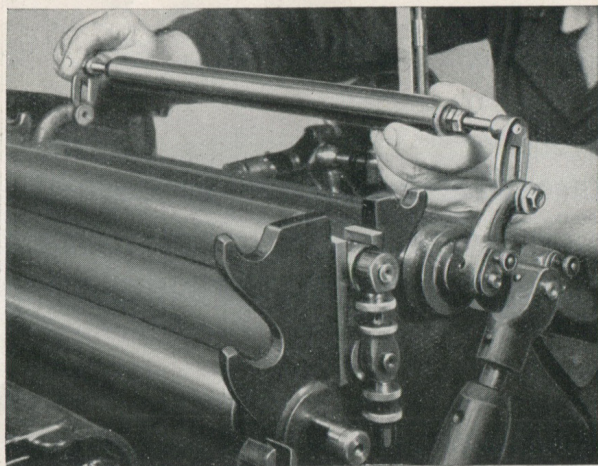
Setting the Rollers

Care must be taken to ensure that the small clip on the open bearing of the forme and distributing rollers is placed over the end of the roller spindles to prevent them from leaving their sockets while running. By correctly adjusting the rollers they will give considerably longer service and a good inking and distribution is obtained. The rollers should be fitted when the platen is closed.



Adjusting the Rollers

The distributing rollers can be adjusted without any tools, as the illustration shows. When in the correct position the rollers should be touching lightly. When this position is obtained the locking nut must be tightened again to keep the rollers secure when the machine is running.



Setting the Steel Rider Roller

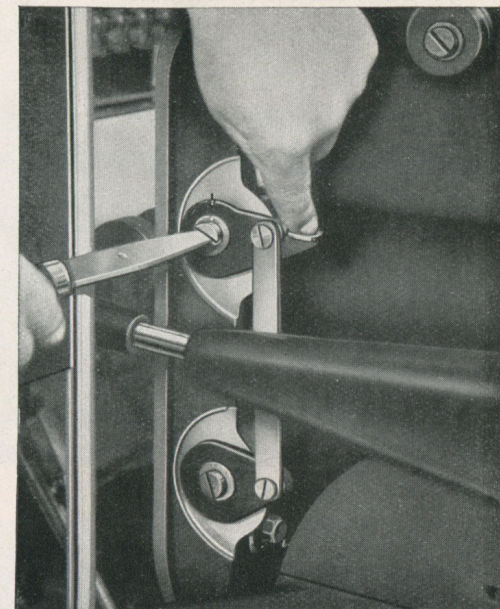
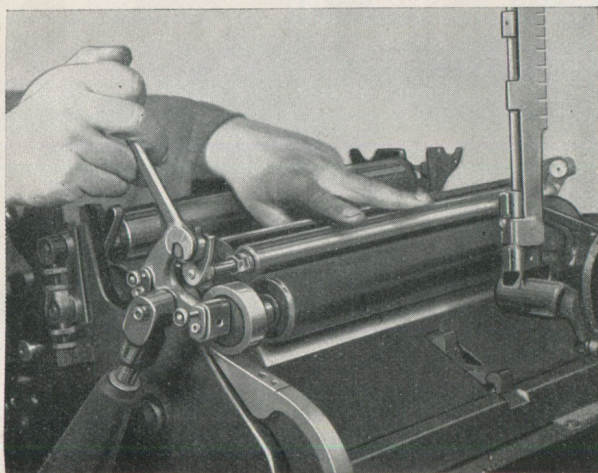
The steel rider roller is not only for the distributing of the ink, but to help regulate the amount of ink. The steel rider is only necessary when printing jobs where repeat marks are likely to occur. When printing light formes or

ordinary type formes the use of the steel rider is of no advantage.

When using the steel rider care must be taken in setting the bearings of the rider. The steel rider is not pressed on the forme rollers by a spring, as this would affect the proper running of rollers, but lies lightly upon the forme rollers and the bearings do not move after they have been adjusted. The ball bearings of the rider give smooth running. The rider roller must be put in when the roller carriage is in its top position.

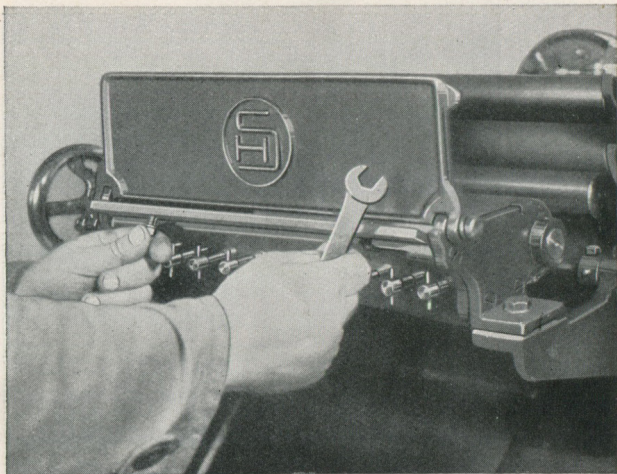
First the screws on the right and left which hold the slotted lever must be loosened. Then the rider with the slotted lever is pushed over the shoulder

of the knurled screw and placed in position between the forme rollers. Then it is only necessary to press down the rider slightly and tighten the screws on the right and left with a spanner. The circular nuts must face inwards on both sides. When working without the rider it is best to remove the screws and slotted lever from the machine altogether.



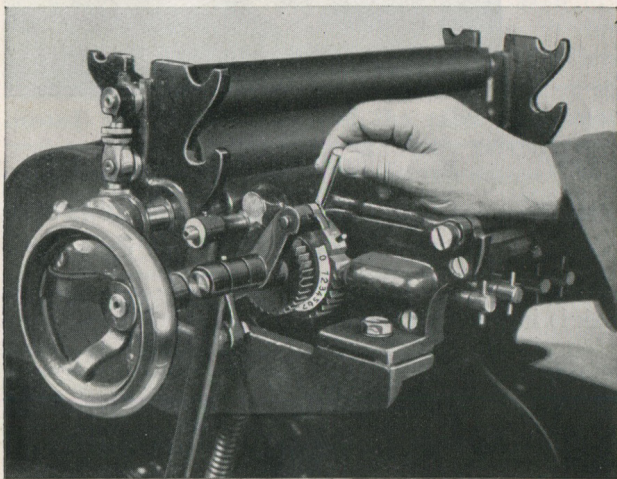
Setting the Roller Tracks

Each roller track can be raised or lowered to adjust the rollers. It is only necessary to loosen the slotted screws of each roller track with the screwdriver and tracks can then be moved to the required position. The normal position of the roller track is indicated by a mark.



The Ink Duct

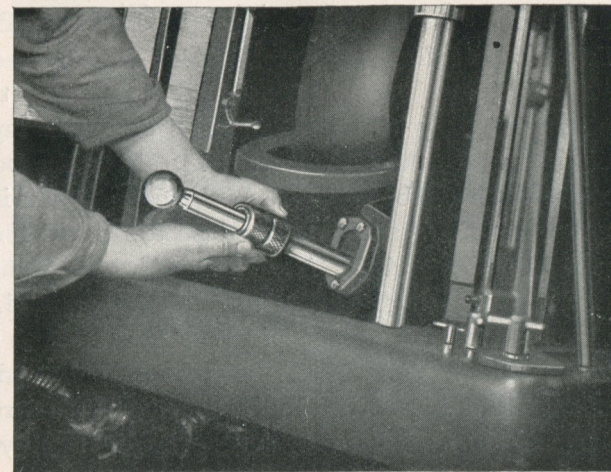
The ink duct is accessible and easy to clean. The loosening of two nuts enables the ink knife to be removed.



Setting the Ductor Movement

The width of "ink pickup" can be regulated from 0-7 teeth by the adjustment of a cam. The adjustment is made by moving backwards or forwards a small lever at the side of the ink duct.

By moving the lever one tooth the "ink pickup" is equal to $\frac{1}{4}$ ". When the lever is set at 0 the ink supply is entirely stopped, and the movement of the vibrating roller is discontinued automatically. When running up colour before printing or making ready care must be taken to see that the impression lever is in the "off" position and the throw-off button of the automatic stop is pulled out. This will be described on another page.



The Regulation of the Impression

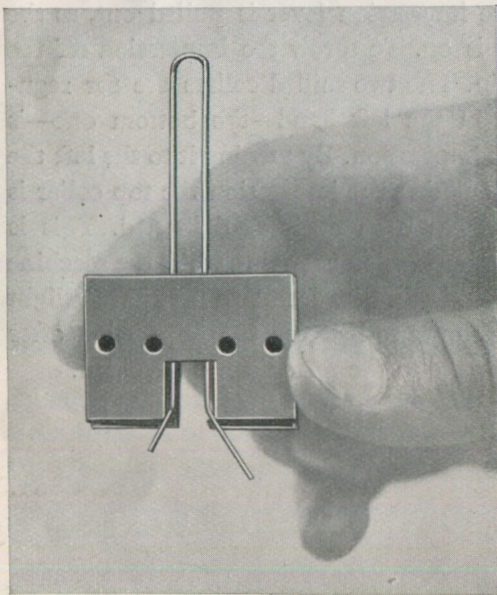
The impression can be increased or decreased, put on or off even when the machine is running. When the impression lever is pulled out, as the illustration shows, the impression is on. To throw the impression off the lever is lifted a little and pushed in. The two milled collars are for regulating the impression. The collar in the left hand—the bottom one—is turned to the right to increase the impression. By turning it to the left the impression is decreased. Before regulating the impression the top collar is loosened and when the adjustment has been made re-tightened. This is only a safety device to prevent the impression changing while the machine is running. It is advisable when printing a new forme to first have a light impression as on every other platen, and to increase the impression after the first prints. In this manner damage to the forme can be avoided.

Changing the Lay Gauges

Two kinds of front lay gauges which vary by their colour are supplied with every machine. When using the brass lays the front paper margin is approximately $\frac{1}{5}$ " , and when using the nickel lay approximately $\frac{1}{50}$ " . In all cases where there is sufficient margin at the bottom of the sheet the brass lays should be preferred. If the front margin is smaller than approximately $\frac{1}{5}$ " the brass lays should be exchanged for the nickel lays. The outside right-hand lay is pulled off to the right and the other right-hand lay pushed on as far as to the stop provided. Care must be taken to arrange on the outside the small spring rivetted to the lay. The centre lay gauge which is moveable laterally, is removed from the lay bar by tilting same and the new one is simply clipped on. The correct position of this lay gauge can be ascertained by sliding it along the lay bar.

Adjusting the Lay Gauges

The centre lay gauge can be adjusted on the lay bar to suit the size of the sheet. As on other machines this should not be placed too near the end of the sheet, but also not too close to the centre.

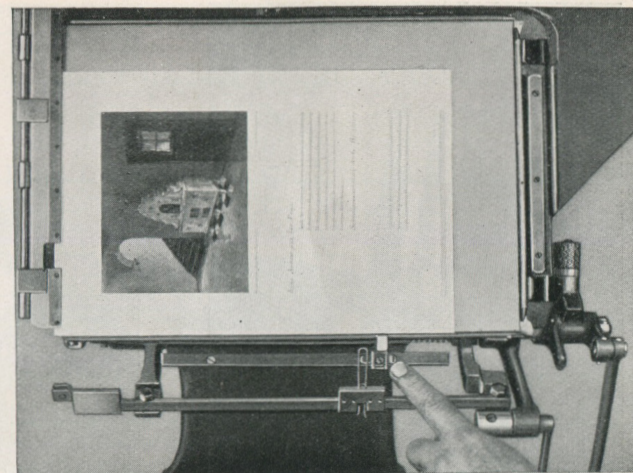


The centre lay gauge is provided with a lay pin which must be arranged clear from the type or block of the forme. In all cases the correct position will depend on the forme itself.

The pins are supplied in various sizes and are used to guide the sheet safely on the lay gauges and to keep it in position. When printing a job at the highest speeds the longer pins should be used. After inserting the pin through the holes of the gauge, the bottom ends must be bent over to prevent the pin from working out to the top and thus damaging the forme.

Adjusting the Slide Spring

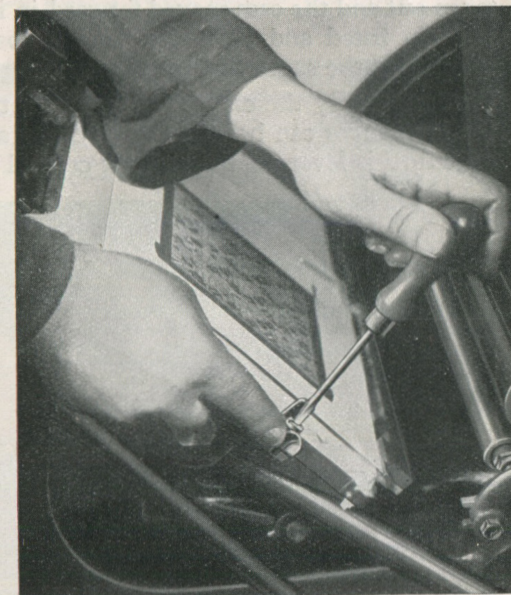
When using the brass lay gauges the slide spring described below will not be required. This will, however, be absolutely necessary when using the nickel lays. This slide spring is adjustable on a holder-bar behind the actual lay gauge bar. This slide spring together with the lay pin ensures that the sheet is positively laid upon the lay gauges. When moving the

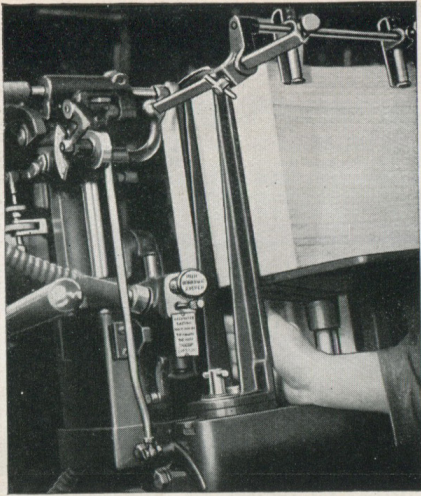


centre lower lay gauge on the lay bar, the slide spring must be moved correspondingly. In order to prevent the spring from getting bent by the side movement of the centre lay gauge, the slide spring should be adjusted as follows: Disengage the lay bar and bring same into its top position while the platen is open. The spring can be either arranged on the right or left of the centre gauge. If the spring is to be arranged at the right of the lay gauge, i. e. between both lay gauges, the spring must be moved to the lay gauge while the lay bar is lifted up. This is, in most cases, the normal position of the slide spring. If the slide spring is to be arranged at the left of the centre lay gauge, it must be placed $\frac{3}{8}$ " away from the lay gauge while the lay bar is lifted up. Care must be taken that the lay gauge does not foul the slide spring when the bar returns to its lowest position.

Adjusting the Side Lay Gauges and the Front Lay Gauges

The adjustable side lay allows movement to the extent of $\frac{1}{20}$ ". This allows for adjusting any slight difference in locking the forme without removing the latter from the machine. The bar to which the bottom lay gauges are fitted also can be adjusted to the extent of $\frac{1}{20}$ " upwards.





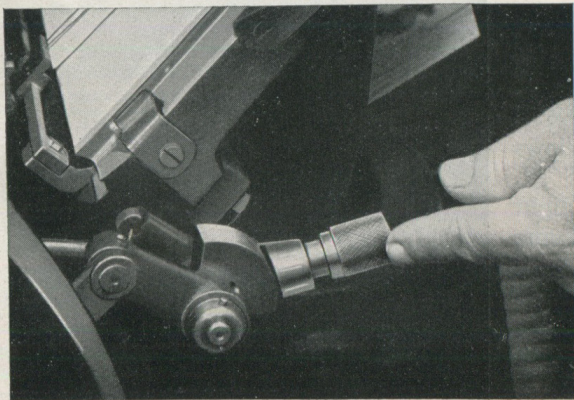
Adjustments for Printing with Lay Gauges

When printing with lay gauges three points of the machine must be borne in mind. These three places are marked on the machine by instruction plates :

Point 1. The left side standard on the feed table must be pushed to the left to the stop. Take note of the plate by the stop.

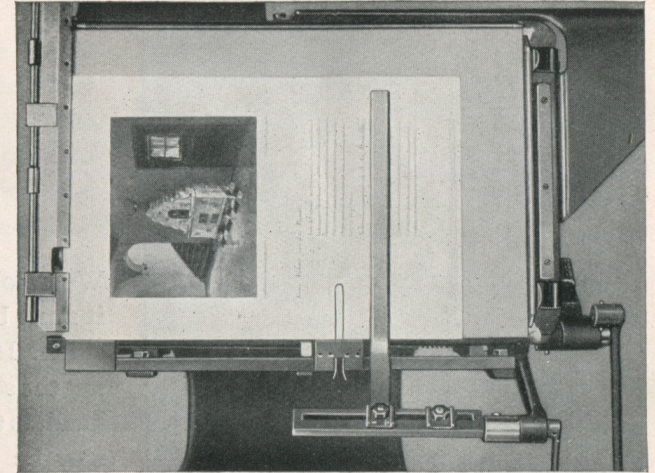
Point 2. On the gripper head will be found a long screw, in the slot of which the screw-driver is set, as shown in the illustration. The screw is taken out and the cam moved forward in its front position. Then the screw is again fitted and tightened. In this position the cam causes the grippers to open at the same time as the lay gauges set the sheet at register.

Point 3. By the cam lever shown in the illustration the movement of the lay gauges can be engaged or disengaged. When the lay gauges are required, this lever on the register control must be engaged. When printing



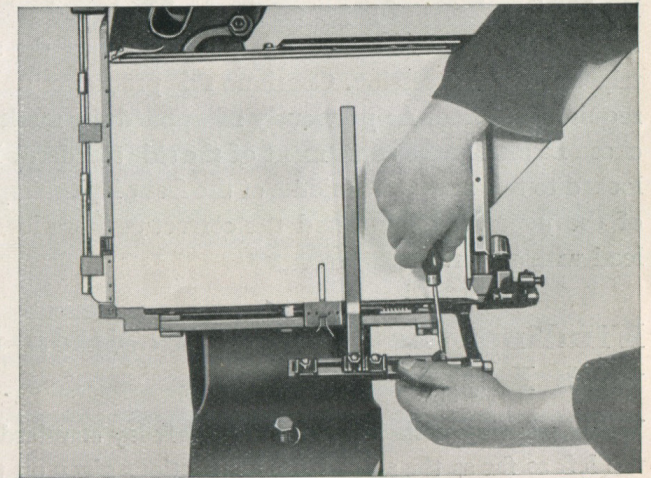
without lay gauges the lever must be disengaged by pulling it out and turning to the left or right. When the lay gauges are not being used they can be brought upwards to the printing position by hand when the machine is not running. Naturally the lay gauges can only be engaged and disengaged when the machine is stationary.

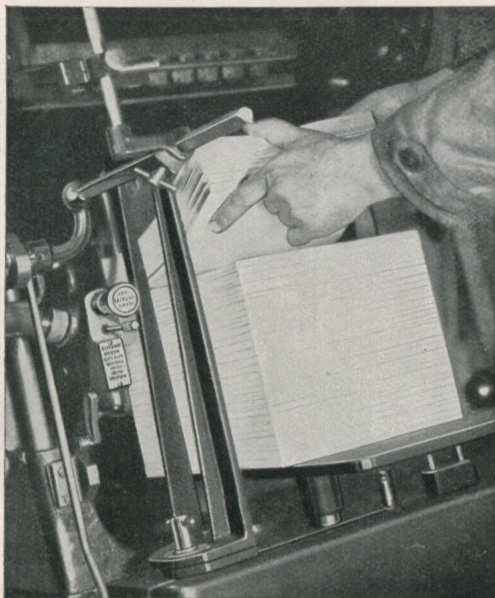
The Frisket Fingers



The frisket fingers can be moved to the right or the left. These are very seldom required on the Heidelberg owing to the fact that the sheet is held by the grippers and is pulled away from the forme by these grippers. The frisket fingers must be set in a gutter or space. When printing with lay gauges, the frisket fingers must be placed at the side of the gauge, otherwise the lay gauge would be damaged.

As already mentioned the frisket fingers are seldom used and therefore it is best to remove the sliding bar from the machine. This is done by loosening the grub screw. After removing the bar re-tighten the screw.





When loading the feed table, it must be in the bottom position. It is advisable to fan out the sheets by hand beforehand, as the edges of the sheets may be sticking together, as is sometimes the case when the paper has been cut with a blunt guillotine knife.

Finding the Correct Position for Printing without Lay Gauges

Place a few sheets of paper on the feed table and take the first impression. If the print is not in the correct position adjust the side lay standard and take another impression. Continue this procedure until the print is in the required position. As previously mentioned the mark on the middle of the chase facilitates the adjustment of the side standard. If the forme has been locked to this mark, the middle of the front lay corresponds with the middle of the paper. Having found the correct position lower the feed table and load with paper.

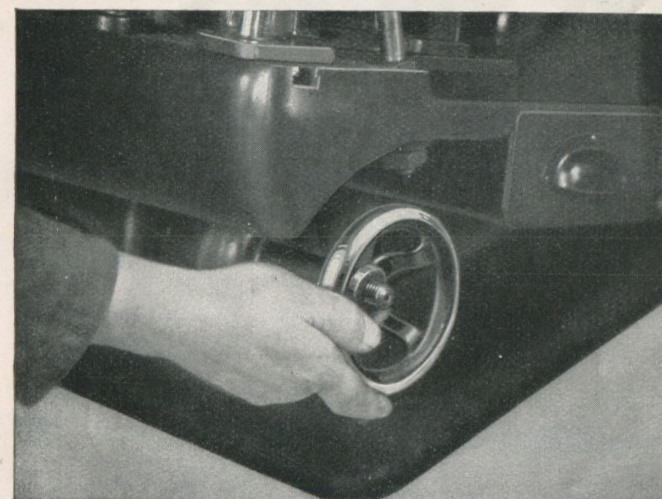
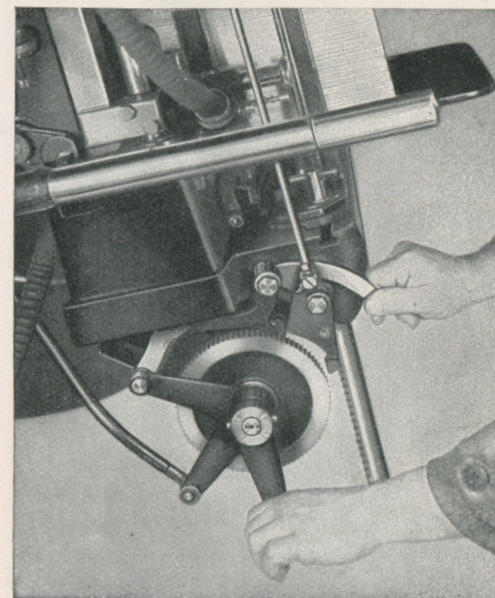
Finding the Correct Position for Printing with Lay Gauges

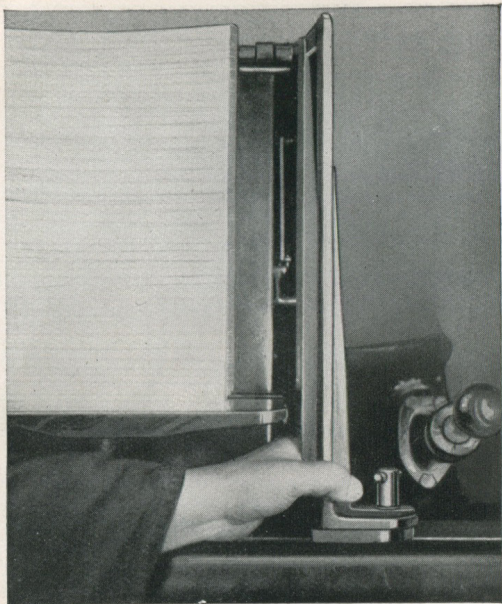
When printing with lay gauges the left lay standard has to be pushed to the left as far as the stop. Note instructions given on the plate by the stop.

Moving the Tables

The table can be moved up or down by pressing down the lever which causes the pawl on the ratchet wheel to lift. The table can then be moved up and down by means of the handle. But it should be noticed that the delivery table also moves unless it is disengaged.

When the delivery table reaches the top position against the stop, loosen the clutch which is on the right of the bottom of the delivery table, by turning the small hand wheel outwards. When disengaging the table it must be held up with the left hand. The delivery table can then be brought in the required position independent of the feed table. The delivery table can be raised without loosening the clutch.



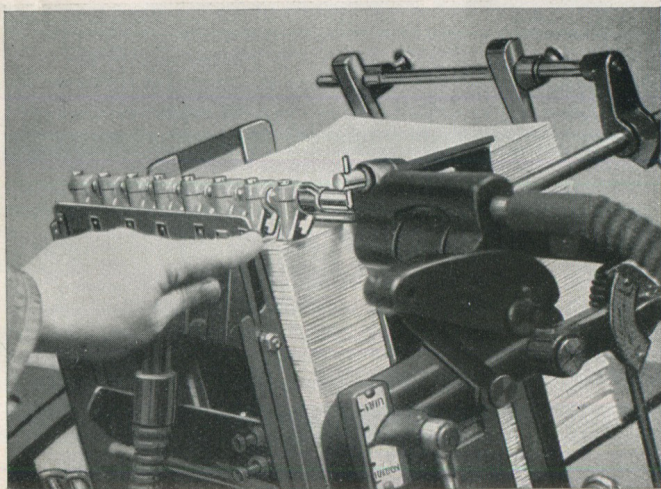


Adjusting the Side Standards when the Paper is Unevenly Cut

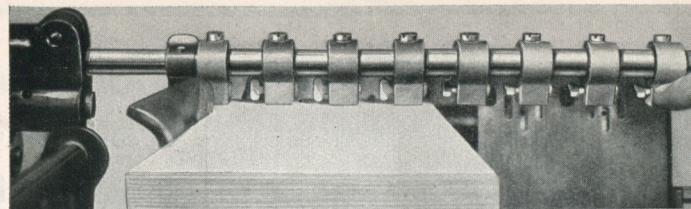
When the paper is incorrectly cut or the paper size varies, the side standard can be adjusted to the position required.

The Distance of the Sucker Bar from the Top Sheet

When the paper has been loaded turn the handle so that the top sheet is approximately $\frac{1}{8}$ " from the suckers for thick papers; or $\frac{1}{4}$ " for thin papers. The suckers will be in their lowest position when the platen is closed.



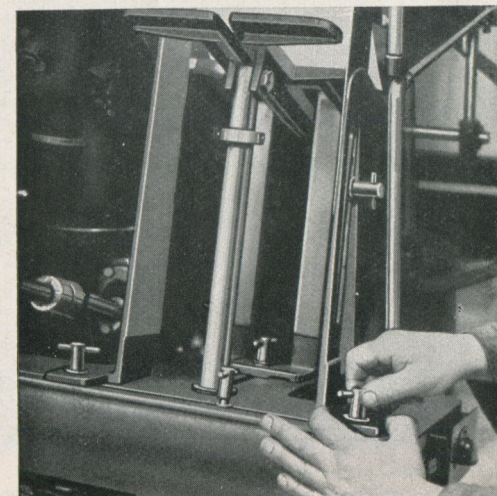
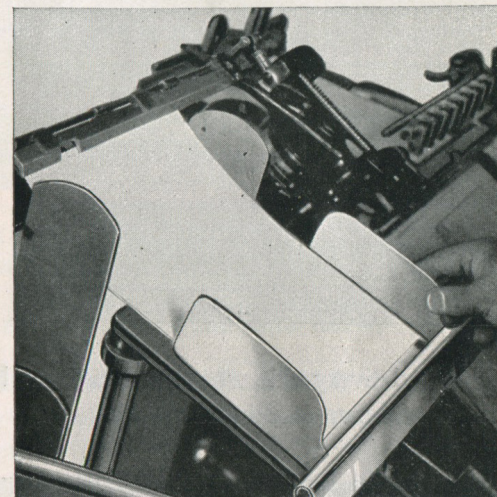
Closing those Suckers not Required



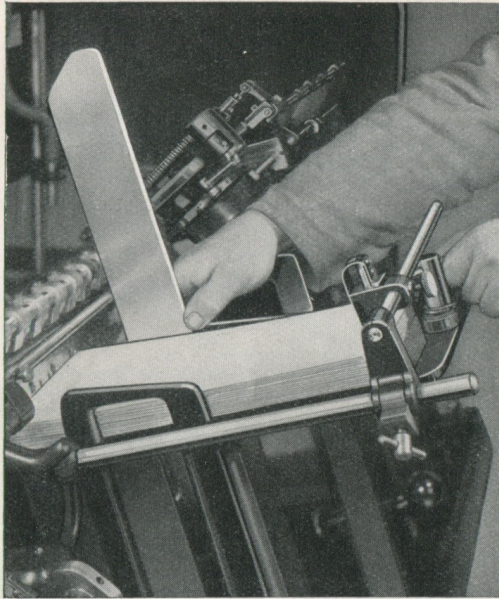
The suckers which do not touch the paper must be closed. The suckers are closed when the keys are in the horizontal position.

Setting the Delivery Plates

Allow the sheet to pass through the machine but stop it before the gripper opens to drop the sheet. The sheet is then hanging in the gripper. Then move up the delivery table so that the sheet has not far to drop, and move the back gauge to within $\frac{1}{4}$ " of the edge of the sheet.



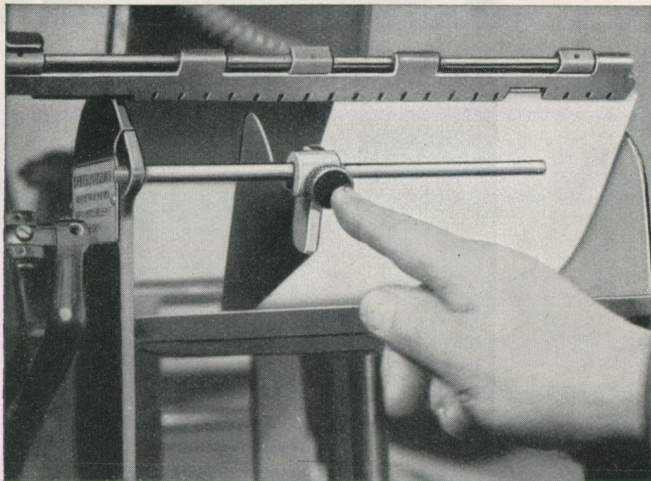
The Side Standards are adjusted according to the Paper Size.



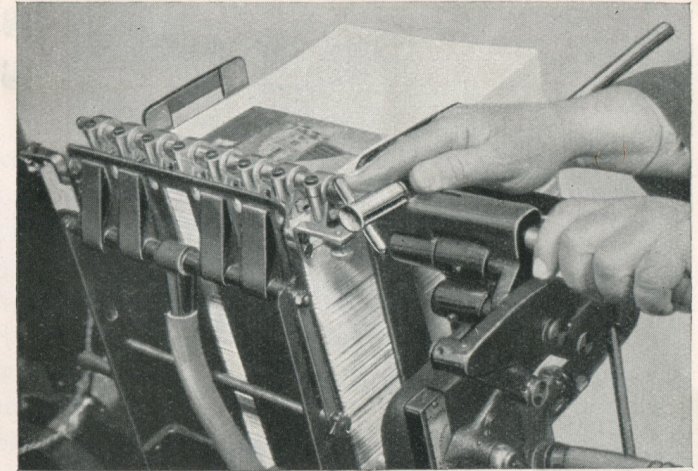
Loading the Table for Small Paper Sizes

For printing small sizes of paper the lay standard for small sizes must be fitted on the feed table, when the lay gauges are to be used. This is necessary because the left standard is pushed to the left against the stop when printing small sizes and the right standard cannot be brought far enough to the left.

On the delivery side when printing small sizes the small guard must be fitted as shown in the illustration.



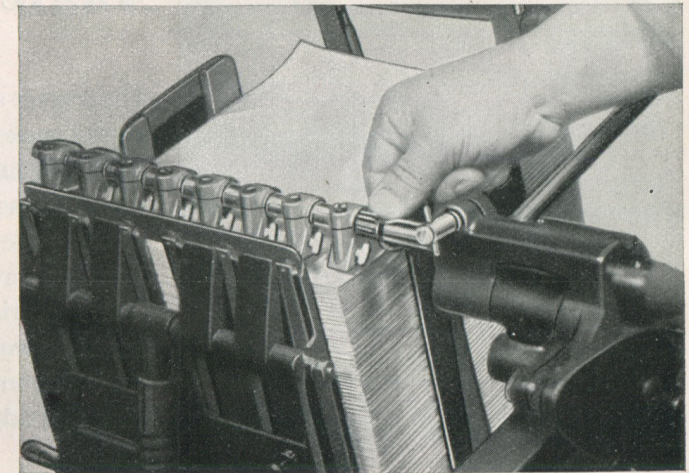
The Side Movement of the Sucker Bar

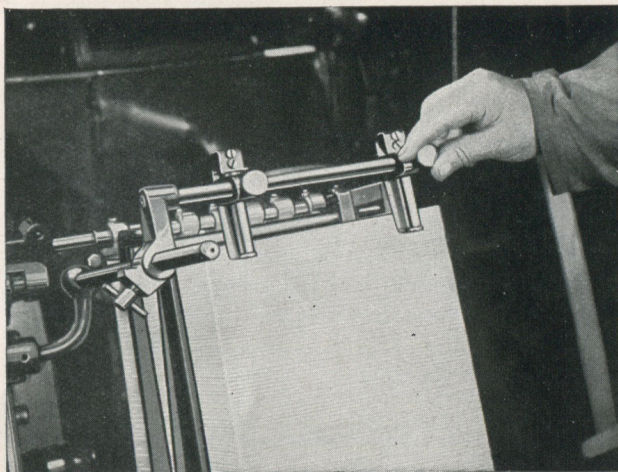


Occasionally the sucker bar is in such a position that one sucker overhangs the edge of the paper. In this case the sucker bar can be moved to the width of one sucker to the right or to the left. To do this loosen the hand screw, find the correct position, then re-tighten the hand screw.

Air Supply on the Sucker Bar

In cases of paper requiring little suction air, such as porous tissue paper, reduce the suction power by opening the hole in the sucker bar.





Sheet Steadier

The back sheet steadier can be lifted clear of the feed table. After the feed table is loaded the sheet steadier should press lightly on the back edge of the top sheets and the hand screw tightened.

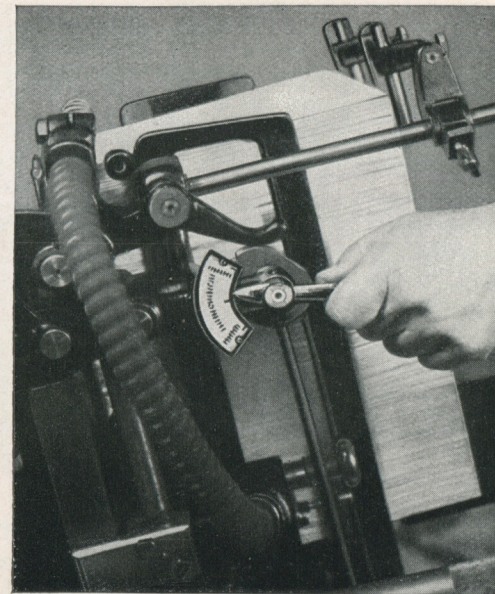


Adjusting the Sucker Bar Angle

The correct angle of the suckers on the sucker bar can be found when the machine is running. The indicator over the scale showing the paper thicknesses describes how the adjustment is to be carried out. Attention must be given to the top locking nut which must be re-tightened after the adjustment has been made.

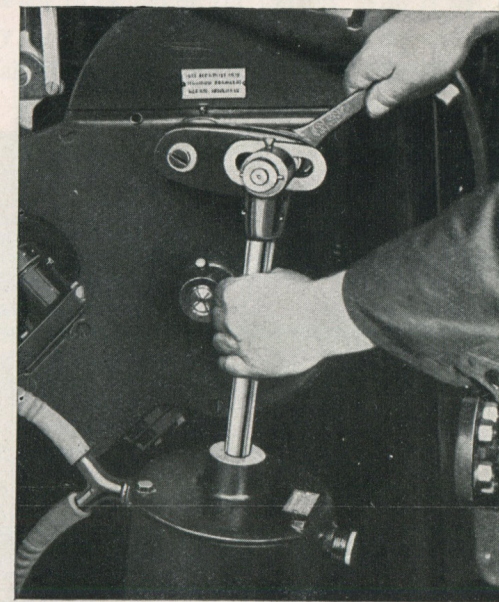
The Paper Movement

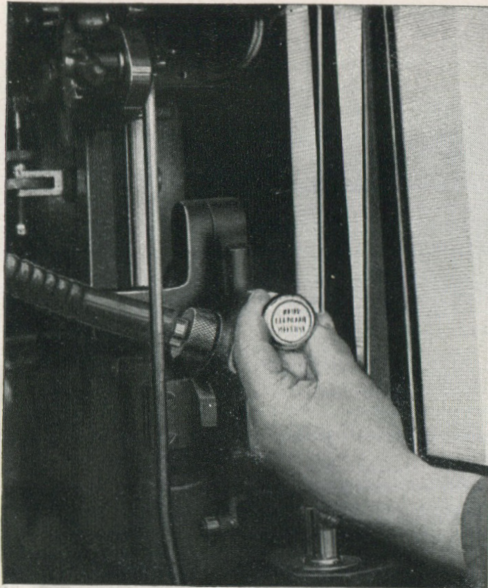
According to the thickness of paper to be printed, the indicator controlling the paper movement must point to the corresponding paper description shown on the scale. Often difficulties occur in sucking the paper owing to waviness, static electricity and unevenness and it is not possible to properly set the indicator to the scale. The most suitable position should then be found and the adjustment made while the machine is running.



Suction and Blowing Air

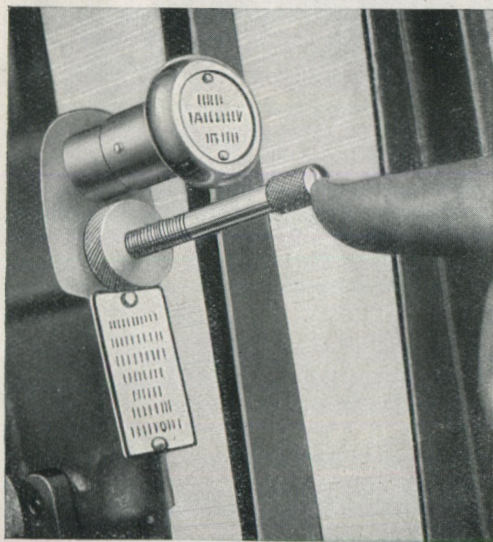
The piston stroke of the air pump can be adjusted. The full piston stroke gives more suction and blowing air, and should be used for cardboard and heavy papers.





Running up Ink

When the machine is required to run without sucking the sheets, or when running up colour, the button shown in the illustration must be pulled out. When the suckers are required in action, the button must be pushed in. This can be done while the machine is running.



The Automatic Throw-off

The screw shown in the illustration regulates the automatic throw-off. Should the machine stop although it has taken a sheet, the screw must be turned out. If the machine continues to run even when no sheet is sucked the screw must be screwed inwards. When the button for continuous running is pulled out, the automatic throw-off is put out of action.

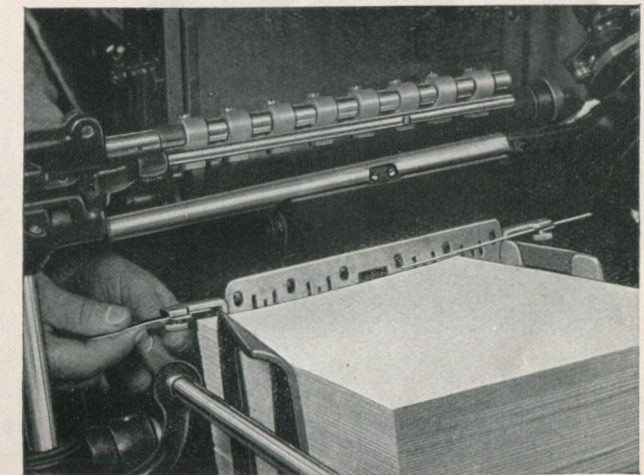
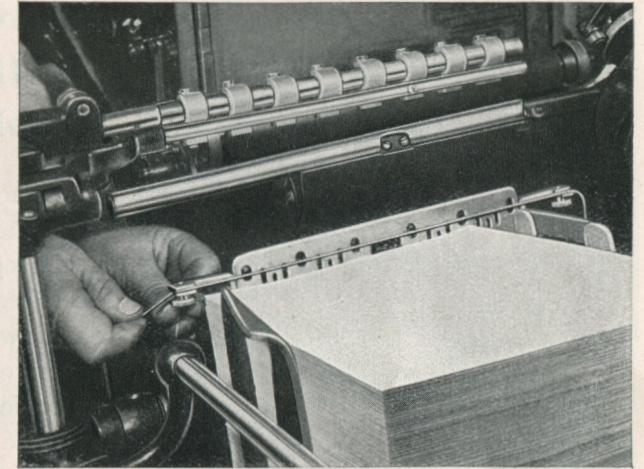
The Sheet Separator

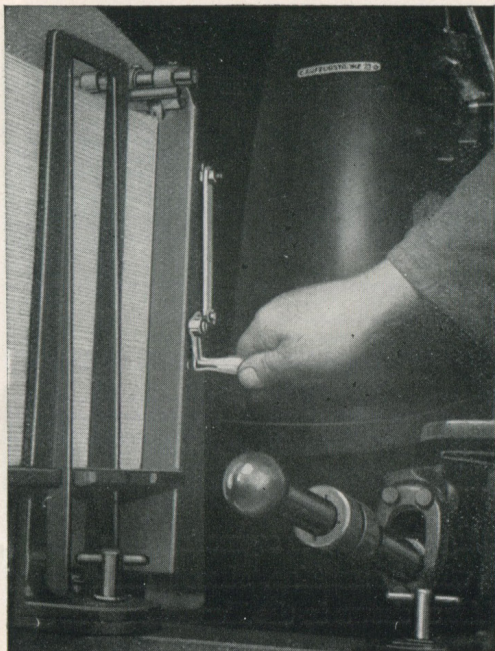
The correct setting of the sheet separator is very important for giving uninterrupted feeding of the sheets.

This operation depends upon the tilting of the sucker bar, the adjustment of the feed table rise, the regulation of the suction and blowing

air, and the tripping band or tripping springs. For separating the sheets, a narrow and a wide band is supplied with the machine. These bands are held on the front lay by means of a holder as shown in the illustration. For thin paper the wide band is used and for thick paper the narrow band is used. The bands are held in such a way that they lie against the front lay and are tightened. In addition to the bands, narrow tripping springs of different lengths are supplied with the machine.

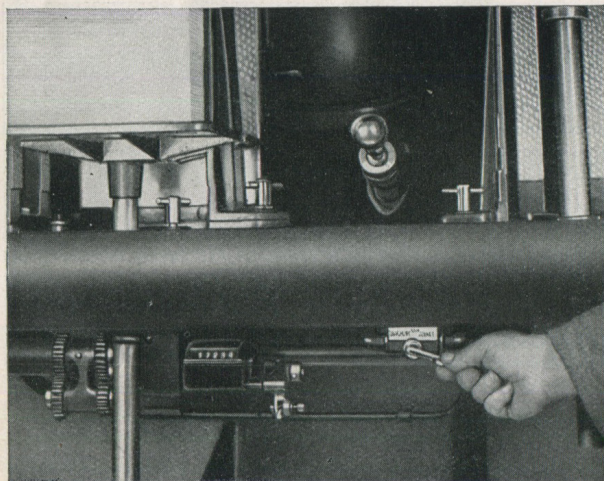
For cardboard and for papers which cannot be fed with the bands, these tripping springs should be used. The tripping springs are held in the holders in such a way that they protrude on each side of the paper by approximately $\frac{3}{16}$ to $\frac{3}{8}$.





Blowing Air on the Feed Table

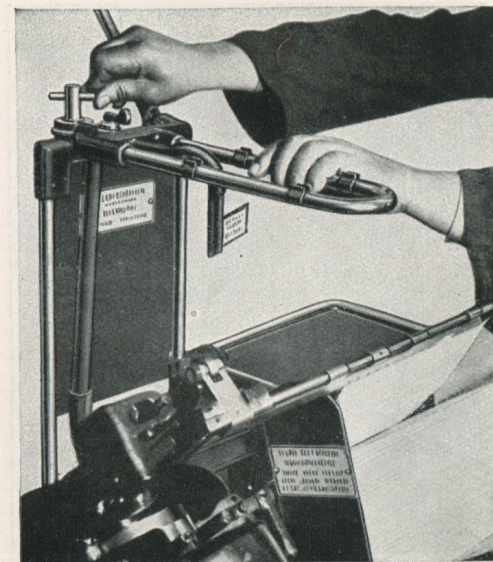
For almost all work the blower is in the best position when at the top. But the blower can be raised up and down by a handle when using flat or wavy papers, or papers that are bent up or down. Adjustment can be made while the machine is running.



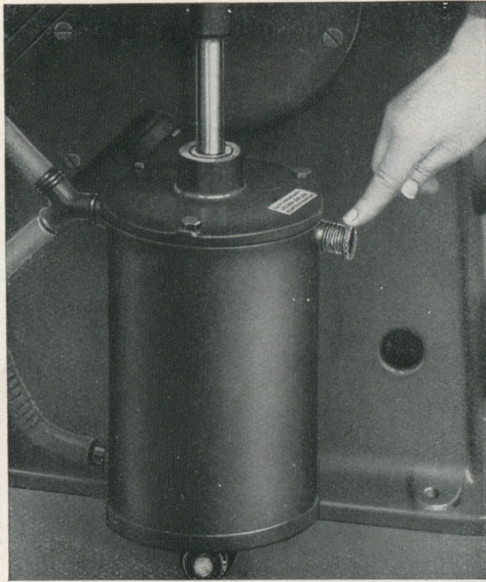
The quantity of the blowing air can be regulated by a tap.

Blowing Air on the Delivery

The large blower over the delivery can be moved to the right or left. It is preferable that the blast of air comes in the middle of the paper. The air holes can be closed by the ring springs as required from one to four holes. The quantity of the blowing air can be regulated by means of the tap on the blower.



On the large blower for the delivery is another small blowing pipe. The blowing air from this pipe flattens the sheet when the gripper is swinging round. If a long sheet is being delivered this pipe must be turned towards the stop, and if it is a short sheet it must be turned away from the stop.



Decreasing the Volume of Air

Should the air be too powerful when feeding thin paper the valve on the pump can be opened by turning the valve outwards, allowing some of the air to escape.

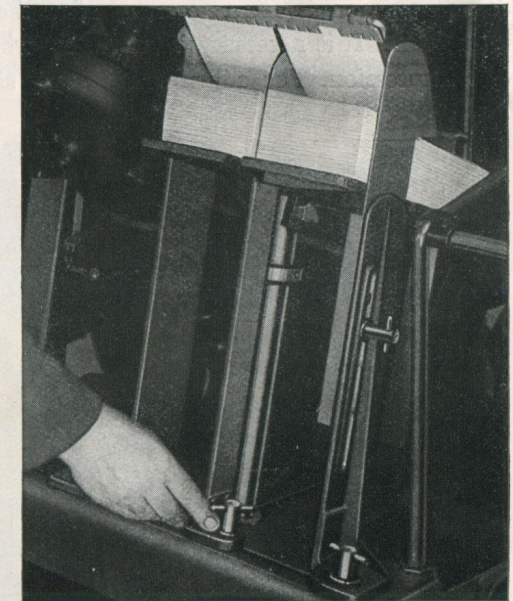
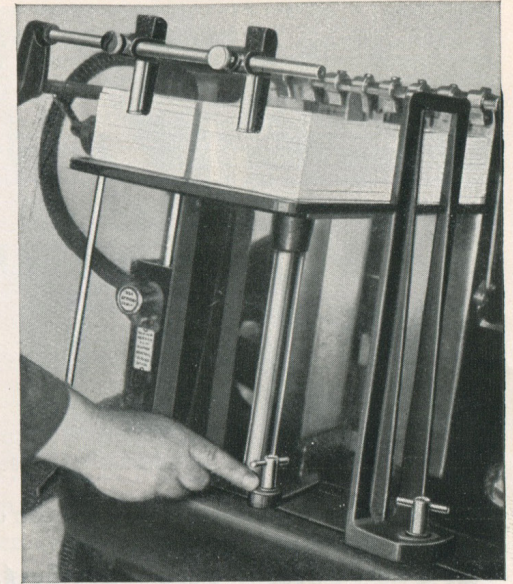
Interleaving

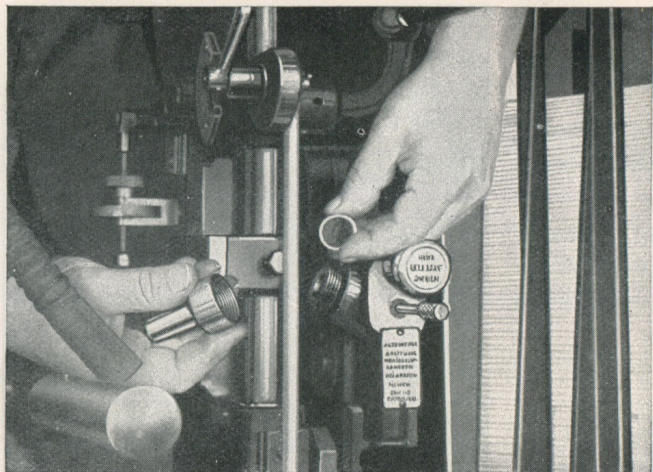
When printing jobs which must be interleaved, the side guard can be dropped so that the interleaving paper can be loaded upon it. Thus it is possible to interleave easily even at a high speed. In order that the side standard can be moved out of the way when interleaving, the extension on the standard can be lowered in the slots.



Printing Two-Up

For printing two-up the middle standards are inserted as a partition between the paper piles. When one of the tripping bands are being used, care must be taken that it lies flat. The lay gauges cannot be used when printing two-up.





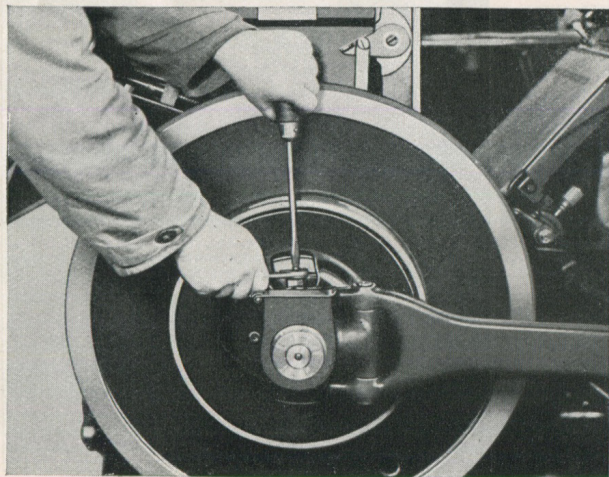
The Air Filter

A fine filter in the suction tube catches the paper fluff and dust to prevent it from entering the air pump. From time to time the filter

must be cleaned. To do this unscrew the cap, clean the filter and replace.

Re-setting the Friction Clutch

This operation is often necessary after the machine has been running for some time. It is necessary when the fly-wheel fails to carry the platen over the impression. The adjustment is very simple. With a screwdriver hold

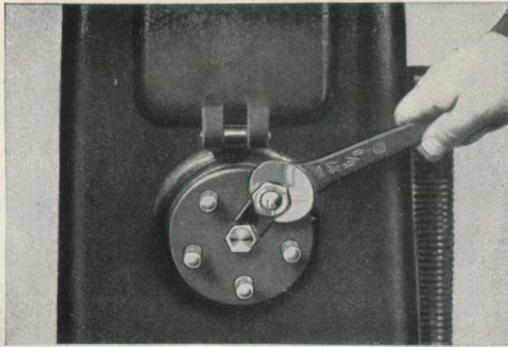


the clutch adjusting screw so that it does not move when loosening the nut with a spanner. Then move the clutch adjusting screw half a turn to the right and re-tighten the nut. The opposite screw should be treated in the same way. This slight adjustment will be quite sufficient in most cases.

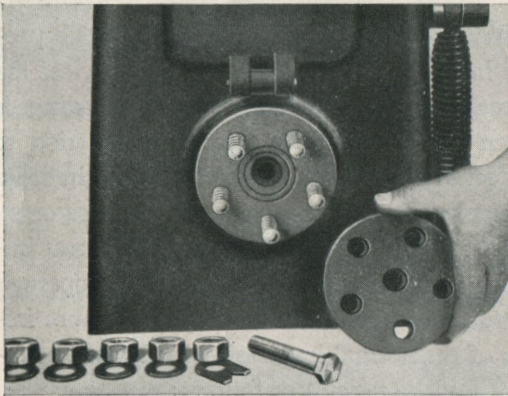
The Shearing Collar Safety Device

The Heidelberg Automatic Platen is fitted with a safety device which protects the machine from damage in case of overloading. Similar devices are now used on all up-to-date machines where danger of overloading is possible. Experiments have been carried out for a considerable period to ascertain how this improvement could be adopted to the Heidelberg in order to protect the machine from carelessness on the part of the operator by using too much impression. As the toggle lever drive gives very great impression power this safety device is necessary. The arrangement operates immediately the impressional strain has been exceeded. The maximum impressional strain is far in excess of the normal impression load when printing a full size forme. The safety device operates as follows:

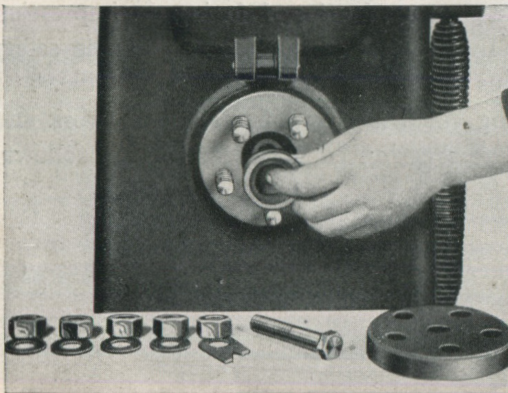
The toggle bearing transfers the pressure developed during the impression to the hardened thrust collar. In the case of excessive strain, the safety collar will be sheared off, thus rendering impression impossible. The changing of the broken shearing collar is only a few minutes' work and can be done by the operator. The shearing collar is changed as follows:



The five hexagon nuts are unscrewed and removed by means of a spanner supplied with the machine. Likewise the centre screw, using the smaller wrench.

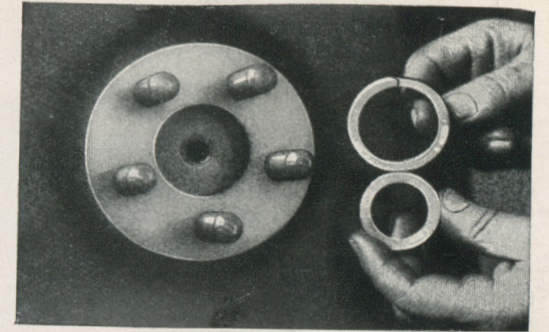


Then the end disc is pulled from the studs.

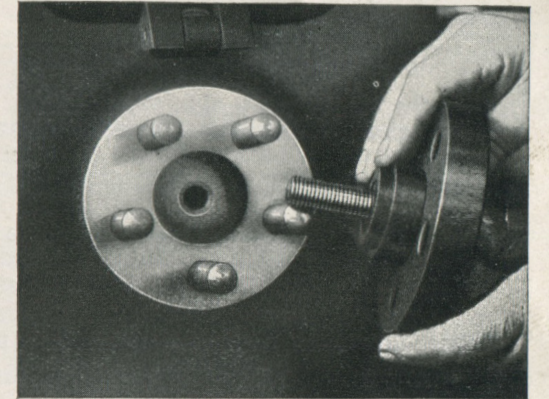


The sheared-off collar with the thrust collar pushed into it is taken out. Remove the sheared-off collar from the thrust collar.

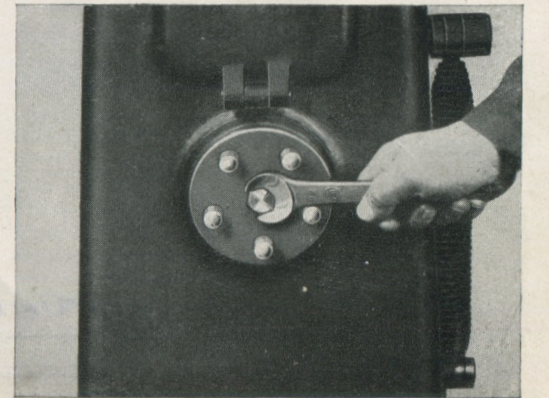
The picture shows the collar sheared into two pieces.



Now slip the end disc on to the middle screw, then the new shearing collar and finally the thrust collar. Thus assembled, the end disc is slipped back on the studs.



Re-tighten the centre screw, then firmly re-tighten the washers and the five hexagon nuts. The replacing of the shearing collar is now complete.



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