

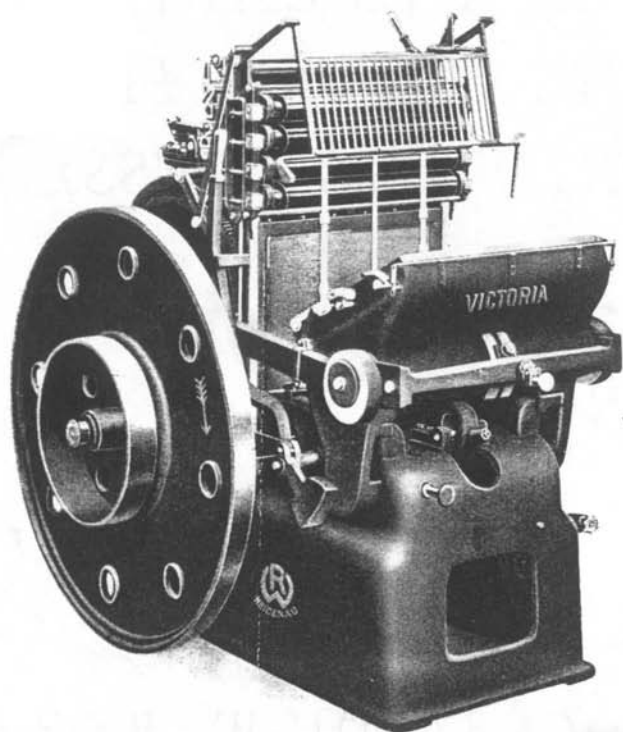
# DIRECTIONS FOR THE USE AND CARE OF THE VICTORIA PLATEN PRINTING PRESSES



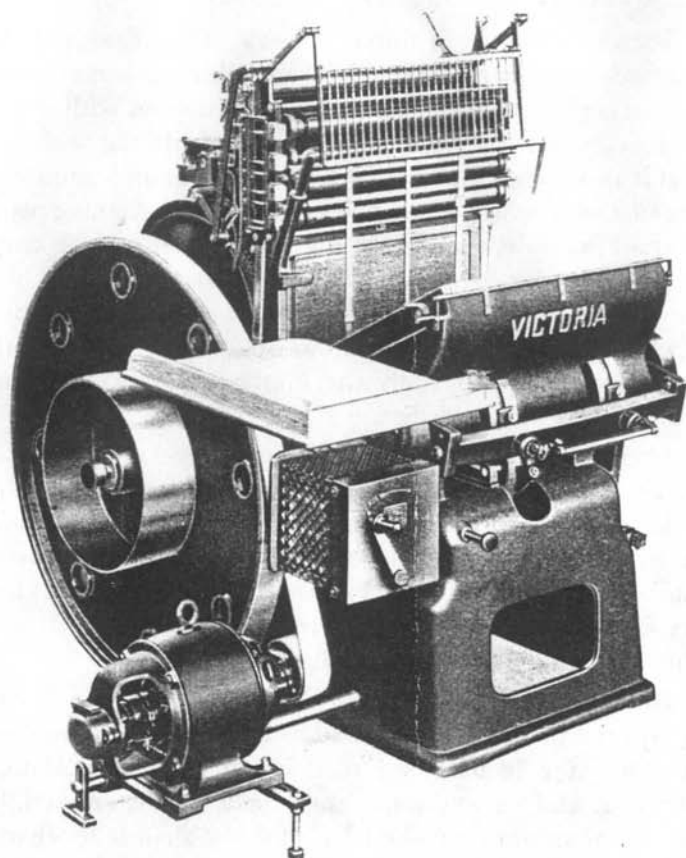
ROCKSTROH-WERKE A.G.  
HEIDENAU

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*Also at Manchester, Birmingham and Dublin. Works: 209, Balham High Road, London S.W. 17.*

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Victoria Original Platen Printing Press "B"  
(Special Model)



Victoria Original Platen Printing Press "C" (Special Model)  
with electric driving

## Erection of the Machine.

Victoria Platen Printing Presses are dispatched fully erected ready for work. After unpacking the machine all grease is removed with clean waste moistened with paraffin and every part is thoroughly dried by rubbing with a dry rag. It is of great importance for the proper and good working of the machine that it is placed in a suitable position. If at all possible, a place for the machine should be chosen where the day-light falls from the side on to the press. Further, it must be observed that no gearing or shafting is above the machine, and that no belts run overhead, otherwise the press, especially the inking apparatus, will suffer from falling dust and dirt.

Should the machine have to be placed on a wooden floor or on an upper storey and not stand with two of its parallel sides on two corresponding timbers of the ceiling underneath, it is necessary to provide a suitably broad frame of timbers 2" thick and place the machine upon it. This frame has to be constructed sufficiently long and in such a way that the minder has room to stand on it.

Such a frame will not be necessary when the floor on which the press is to be placed, is of stone or cement. When the machine is in position, it is adjusted parallel to the shafting, and its exact horizontal position examined. The length position is checked by applying a spirit level to the platen-guide slides, whilst the position in the width is examined by putting the spirit level on the ink drum. Any differences are rectified by wooden wedges or cardboard being placed under the machine. This must be done so that the machine stands solid over its entire base. The levelling up of the press is of great importance, for there

will be a rapid wear and tear of the mechanism if the machine is not level. Oscillation or vibration of the press when working should not occur.

When pulling a proof for testing the press, it is best to choose a forme of type only. Lock the forme in the chase so that the impression will take place exactly in the centre of the platen. After having run up colour, six to eight sheets of medium weight super-calendered paper are put over the platen and, the impression having been regulated, the proof is printed. This should show a perfectly uniform impression. Should there be any deficiencies, these may be caused by the ink being unequally distributed, or they may be due to the paper, because it is known that paper is sometimes a little thicker on one side than on the other, which causes the impression to be uneven. If, for instance, the printed sheet shows a stronger impression on the right-hand side of the machine than on the left, the sheet should be turned so that its right-hand side is now on the left. Should the sheet show in this position, i. e. on the left, also a stronger impression, it is the best proof that the paper is not of equal thickness. The strain in the centre of the platen being always heavier than on the sides, the construction of the platen is arranged slightly domed in the centre; with light formes two sheets of tissue paper are printed heavier in the centre than at the sides; with heavy formes the platen prints fully and evenly. All Victoria Machines are tested by printing before leaving the works and a specimen sheet is left on the platen.

## Clothing the rollers.

While the machine is being set up, the clothing of the rollers may be undertaken. For this purpose a good tough

composition is recommended which will retain its resiliency at high speeds and when printing with stiff and quick-drying inks. To ensure that the composition adheres to the metal roller spindles, they should be wound round firmly in a spiral with a strong cord. The spindles, roller mould, the foot and star must be thoroughly heated each time before casting, whilst the mould, foot and star must be thoroughly and uniformly oiled. This is done with a cloth-pad of suitable thickness fixed on a stick, the mould then being thoroughly but not too heavily oiled. When this has been done, and the spindle inserted well into the foot of the mould, and the star properly fixed on the spindle, casting can be carried out with the composition melted in a water jacketed pot. The composition must be poured so that it runs along the spindle, to enable the air to escape and to avoid air bubbles. Forced cooling of the composition should be avoided, as air bubbles still rise from time to time. After a few hours the composition will have sufficiently cooled to enable the roller to be withdrawn from the mould (star side first). Premature withdrawal of a freshly cast roller before the composition has thoroughly cooled causes it to sag or set to a particular spot, so that it is then not perfectly round. If the mould was carefully oiled the roller can be withdrawn without difficulty. It is of the greatest importance however, after casting the rollers, to clean the mould of oil and other residues, giving it a light coat of grease, covering it over at the top and keeping it in a dry place. If this is not done, the oil and composition left behind will dry hard and, in subsequent casting processes, cannot be completely removed by simply wiping and oiling the mould and, in addition, will make it difficult for the newly-cast roller to be withdrawn from the mould. When re-casting used composition

rollers, the ink and cleaning material, which forms into a crust of about  $\frac{1}{8}$ " thick, should be scraped off (this is preferable to scalding off). The ends of the roller should also be removed. This hardened composition is useless, as not only will it not melt, but it will also contaminate the good composition. Roller composition swells to a certain extent owing to the raw materials of which it is composed; it is therefore advisable to keep the rollers in cupboards set up in a dry place. The dry heat of central heating causes the rollers to shrink badly. The composition of repeatedly re-cast rollers is hard and difficult to melt; cut up such old, hard composition into small cubes, place it for 10 minutes in cold water, and then let it stand over night on a board. The small quantity of water which it absorbs causes the composition to melt more readily.

## Oiling the press.

When the rollers have all been mounted in their bearings, the machine must be thoroughly lubricated in all its parts. This should be regularly repeated, as it is of the greatest importance that all the mechanism should run smoothly, and it adds greatly to the life of the press. For lubricating, a good perfectly pure lubricating oil of medium consistency should be used, and also a thick Stauffer grease. All holes and running surfaces must be provided with sufficient oil, and the lubricating cups filled with oil. First oil the fly-wheel shaft bearings, the main shaft, the cylinder journals, and all rotating parts, such as the rollers in their bearings, etc. The main shaft, the tracks on which the platen travels, and the platen cam, must always be kept well oiled. Particular care must be taken to see that the two intermediate driving gear wheels of the ink distribution drums are always

thoroughly oiled. The two small tubes marked with red in the left hand side-frame are the oiling points. The gears of the machine should be thoroughly greased. The worm thread of the reciprocator in particular must be well oiled and also occasionally cleaned, so that the crescent can always turn easily correspondingly to the worm threads, and to prevent its guide-pin seizing in the screw seating. If this is overlooked, the threads of the worm will become prematurely worn and the crescent may break off. When the reciprocator spindle worm is worn out, a new worm must be cut on the other end or the spindle replaced by a new one. The bearers on which the inker-rollers revolve and the roller runners themselves should remain perfectly dry to prevent the rollers slipping over the forme. The track in which the roller-carriage runs should be oiled. The crank gear wheel is provided with an automatic lubricator. A ring, running over the crank gear wheel hub dips into an oil container and, rotating, carries oil upwards so that a supply goes through a hole in the hub, whilst the wheel is stationary, to the pin on which the wheel rotates. The excess oil is returned to the container by a ductor sliding on the hub of the wheel and pressed down by a spring. The following points must be carefully observed:

1. The ring must always run in the groove of the hub.
2. The oil level must always be high enough for the ring to dip into the oil.
3. If the device is removed for cleaning, care must be taken when refitting that the ring and the ductor are put in their proper positions.

If the press is kept working the whole day, or used for heavy impressions, embossing, punching out, etc., the main parts of the machine, such as the fly wheel bearings, main



shaft, connecting rod bearings, slide-tracks, and the bearer bolts on which the intermediate gear wheels of the inking cylinders revolve, must be well oiled at least twice a day.

## Working the platen press.

### *The tympan.*

To ensure good printing results on the machine at all times, it must receive proper and skilful attention. The tympan on the platen should consist of one piece of cardboard of medium thickness and two or three sheets of fairly thin manila or writing paper. Fasten the paper only in the lower clamping device, draw them as taut as possible over the platen and clamp tight with the tympan-rod located above the platen. Then push the cardboard from one side beneath the tightly drawn paper; this ensures a tight compact tympan. A tympan made in this way will prove sufficient for most jobs. For large formes and formes with worn type or fairly large illustrations, a thin sheet of dental rubber stretched over the platen will facilitate the procuring of a good impression of the forme. If an extremely tight tympan is necessary, the top sheet is drawn on moist. For such a tympan, two postcard-boards are cut of such a size that a free margin is left round the platen of  $2\frac{1}{2}$  ems pica. This margin is coated with dextrine and the previously wetted sheet (uniformly worked manilla paper or well sized note-paper) fixed on it over the cards, with the wet side of the sheet upwards. If the machine is allowed to run empty for a few minutes, the stiffener very soon dries. A tympan of this kind is eminently suited for printing illustration and rule formes. The making ready should be confined to a minimum, as with the aid of the impression regulator, it is easy to obtain the necessary strength of impression, and to

make up with tissue paper, where necessary. If certain parts of the forme require to be brought up, this is best effected from underneath the forme (underlay), so that the smooth surface of the platen is not impaired and all printing parts of the forme then constitute one plane to ensure uniform inking by the shallow-set inkers. For large formes and those requiring a very heavy impression (cameo-embossing), it is necessary for the indicator of the graduation scale to be positioned as nearly as possible at  $25^{\circ}$ , so that the impression-adjusting eccentrics on the platen shaft are not subjected to an injurious strain, and to prevent the impression regulator bow from rebounding.

### *Making ready for illustrations.*

Special care is necessary for the make-ready of illustrations, and especially of half-tone blocks. These must be first printed very lightly, and the block itself levelled up with tissue paper, so that a level impression is obtained. According to the nature of the block and of the paper to be used, this levelling up itself will produce excellent results, whilst on the other hand, extra over-laying of the solids on the platen may be necessary. These overlays, however, must consist of only the very thinnest paper because, if thicker paper is used, the high lights in the block will not print out and, to bring them out sufficiently, the printing platen would have to be set to a greater pressure. This, however, would put excessive pressure on the solids, the ink would be pressed away or squeezed together and its fine gloss become lost. It might also be considered whether it would not be more advisable to place the actual make-ready beneath the block. This method would be particularly facilitated if the blocks were mounted on iron or metal when printing. If halftone

blocks are mounted on wood, the under-laid parts (solids) press into the wood and the effect is lost. For printing half-tone blocks on the platen press a good illustration ink is used, a small quantity of which covers the plate perfectly. Thin ink, having but little body, favours the squeezing out of the solids, and is unsuitable for printing on platen presses.

### *The lay.*

If required, the platen press can be equipped with our approved front and side-lay which facilitates working on the machine to an extraordinary extent and which is essential when accurate register is required such as when printing colour work and the like. This lay apparatus consists of a steel band which is perforated at both ends, is stretched across the platen and mounted on pins fitted to the right and left of the platen. The steel band is easily raised and lowered and also set obliquely, and can be regulated by means of micrometric screws to secure exact register of the impressions. To prevent the steel band flexing when working with very thick material (manilla board, presspan, thin pasteboard, etc.) pieces of pasteboard are stuck in two places behind the lay-band. A steel tongue with sliding lateral movement completes the entire lay mechanism.

### *The grippers (frisket fingers).*

The grippers are adjusted on the platen close to the impression, and are intended to hold the sheet in position and to detach it from the forme when the platen returns. Care must be taken to see that the grippers rest evenly against the platen, so that they do not shift the sheet out of its exact position. As the size of paper is often very small or other circumstances exist owing to which only one

gripper can be used (which, however, sometimes does not prove sufficient for the purpose of lifting off the sheet), transverse grippers can be used which are mounted on the grippers proper, or strings are drawn from one gripper to the other at blank places in the forme. In special cases a frame is used, made of a stiff sheet of manilla, fixed to the two grippers, from which the printed matter and the lay-marks have been cut out. Pieces of cork or rubber stuck on this sheet of manilla prevent smudging.

### *Locking up the formes.*

The setting up of the formes intended for printing on the platen press, and their locking up, must be effected with the greatest care. As the forme occupies a hanging or vertical position on the machine, and accordingly in platen printing the centre of gravity of the type lies in a less favourable position than when printing on a flat-bed machine, very special attention must be paid to perfect justification and correct rigidity of the composition. If this is neglected, letters, etc. will inevitably rise out of the forme, especially when strong ink is used. Care should therefore be taken to see whether the individual parts of the composition can be pressed out when the forme is locked up and raised and, if this is the case, such defects should be rectified. If, as a result of faulty locking-up, furniture or other large parts of the forme come out, the rollers will be damaged or even the roller carriage may be held up and the machine be more or less injured. It should also be seen that the impression is effected as near as possible in the centre of the platen, as this causes the least strain on the mechanism of the machine. If for any special reason formes have to be locked up out of centre, then in order to save wear on the machine, something

should always be locked up on the opposite side (a type-high quad or such like) to balance the pressure on the platen. To prevent the tympan or overlay being smudged by the inked quad, the latter may be kept below type height and the impression made up by pasting cardboard on the platen. For small runs, furniture of type height may be allowed to print on a frame template affixed to the grippers as already described.

### *Embossing.*

When embossing, in particular, the greatest care must be taken that the impression lies exactly in the centre of the platen, as otherwise the machine may sustain severe damage. If in exceptional cases embossing dies are locked up or stuck on out of centre, the impression must be balanced up as described in the preceding paragraph. Should it be necessary to underlay the embossing die when already locked up in the chase, the chase should be removed from the machine each time after under-laying and be laid on a composing surface, the forme loosened and locked up again so that, when in the machine, the chase always lies completely on the bed. If this is not done, the cardboard stuck on behind will prevent the lower edge of the chase entering far enough into the acute-angled holding lugs. The chase with the die will be higher to the extent of the thickness of the board and the die will no longer accurately fit into the counter-die, matrix or force. If the embossing die is fixed or stuck on the special die-plate, no under-packing of the die-plate must be resorted to under any circumstances.

### *The force (matrix, counter-die).*

When making a force on our "Victoria" Platen Press, the piece of cardboard to be stuck on the platen should not be

thicker than a maximum of 1 mm ( $1/25$ "), so that the impression adjuster is never below  $20^{\circ}$  to  $25^{\circ}$ . The relief of the force should correspond to the depth of the embossing plate. When embossing from dies with very deeply engraved drawings, etc., cut the design out of thin pasteboard to the required depth and stick on the corresponding place on the platen; complete with dextrine and tissue paper. With forces of this kind not only is the structure of the stock preserved, but wear on the machine is also avoided. In the case of small and shallow embossing, dextrine, purified chalk, and tissue paper are used for the force. Our "Victoria" matrice powder offers special advantages.

#### *Use of the Victoria matrice powder.*

The "Victoria" matrice powder is stirred with methylated spirit into a paste, as much of the latter being applied on a piece of thin writing paper as the size and depth of the relief impression requires. The paste thus applied is then laid on the hard cardboard previously stuck on the platen, with the paper turned upwards and then tough tissue paper coated on both sides with turpentine is placed over it. The embossing die, heated to about  $212^{\circ}$  F, is now lifted into the press bed, the machine turned on to the impression, and allowed to stand under pressure for 3 to 5 minutes. During this time the force is formed. The press is then released, the surplus margins which have protruded round the force are cut away, and the press is allowed to run on under pressure for a short time, whereupon the force is ready for use. To protect the force from moisture, it is advisable to coat it with asphalt dissolved in benzine or benzol. It is important that a perfect force with all detail work be made; do not attempt to get detail by pressure only.

*The rollers and the inking gear.*

The cylindrical inking gear, which partly consists of two inking drums and a number of steel and composition distribution rollers, ensures faultless inking of every forme. In particular, the Double Inking Gear of the Victoria C and D meets every demand that can be made as regards the inking of illustrations with great solids, full tint surfaces, etc. In these machines two rapidly revolving steel cylinders are arranged below the bed, whilst the roller carriage has four inking rollers with, in addition, a steel rider above each of the two lower inking rollers. All the inking rollers and riders take their coating of ink from the ink drums. During the downward movement of the roller carriage, however, only the two bottom inking rollers ink the forme, whilst the two top inking rollers and the riders are lifted when passing over the forme. On reaching the bottom, the two ink-deprived bottom inking rollers run on to the rapidly revolving steel rollers, and at the same time the riders deliver up their stored-up ink, so that these rollers are freshly inked. The two top inking rollers, up to this point tripped, are automatically released, drop on to the forme and, on the upward movement of the roller carriage, all four inking rollers ink the forme; the riders, however, are now tripped, so that they cannot take off any ink. The inking roller bearers must be adjusted to the correct height of the forme by means of the adjusting device, especially when printing rule, so as to prevent the rollers being cut by the rules. To correctly set the inking rollers, the bearers are at first set as high as possible. When the forme is in the machine the bearers must be re-set until the inking rollers just touch the forme. Bearers and roller runners must always be free from oil to enable the rollers to be positively driven over the forme

and effect a good supply of ink to it. Jobs on which an irregular covering of colour might be expected require, in addition, an evenly clothed set of inking rollers. If the rollers are used for varying lengths of time, a difference in their periphery will become noticeable. This can be tested by laying a paper strip round the rollers and measuring the length taken for each. As, in platen presses, all the rollers are set simultaneously and to the same height, and therefore, no attention can be paid to the periphery of each roller, it is important to bear this in mind. Generally speaking, the minder must give full attention to the entire inking mechanism and pay due regard to any circumstances which might prove a hindrance to uniform inking. Very often one may see inking rollers running out of true in the machine, producing streaky impressions; such defects in the print will be apparent if the rollers are only slightly out of true. In addition to the streaky impressions obtained, a crooked roller can be noticed in the press by the rapid reciprocating movement of the bearings caused by the rotation of the non-circular rollers, as soon as the roller carriage reaches the inking cylinder. Bent roller spindles can be caused by parts emerging from the forme, so that the rollers, which are in full movement, strike against them. If these protruding letters are not too strong, they mostly break off or jump back into the forme through the impact of the rollers. Note, therefore, that the type must be very carefully set, and the forme properly locked; otherwise there is danger to both forme and machine.

### *Slurring.*

The duplication of lines, types, etc. on the paper (so-called slurring), may be due to a number of reasons. It occurs



mostly with wavy papers and with rule formes (tabular matter). The slurs may also be due to the character of the composition, or to its position out of centre in the chase, and to loose rules or letters in the forme.

To avoid slurring, care must be taken to see that the tympan is perfectly tight, and that the grippers lie in uniform contact. In addition examine the platen to find out whether it is properly held at the moment of impression by the adjustable lugs at the rear end of the guide-tracks. For this purpose, turn the machine into impression position; if there is a clearance between the rocker surface and the lugs, slightly tighten them by means of the adjustment screws. They must not, however, be drawn too tight; a sheet of tissue paper placed between the cradle path of the platen and the slideway of the base should just be lightly gripped. If the above points have been considered and rectified, and slurring still occurs, it may be caused by paper which does not lie flat on the platen and therefore does not make uniform and simultaneous contact with the forme. In this case the paper must be made to lie flat on the platen by a "frame" fixed on the grippers (a tight sheet of manilla from which all the parts to be printed and the lay-marks have been cut out). Pieces of cork stuck on the "frame", on the furniture, or on the grippers, cause tension between the paper and the forme and eliminate slurring in the case of wavy paper.

### *Jobs in two or more colours.*

For the more rapid production of colour work, it is extremely advantageous when the printing of two colours side by side can be effected simultaneously on the platen press. For this purpose, it is necessary to stop the lateral movement of the large ink drum, so that the colours remain separated

in the centre of the cylinder. The lateral distribution is then undertaken by a reciprocating roller, provided with a cut-out recess, for two-colour work.

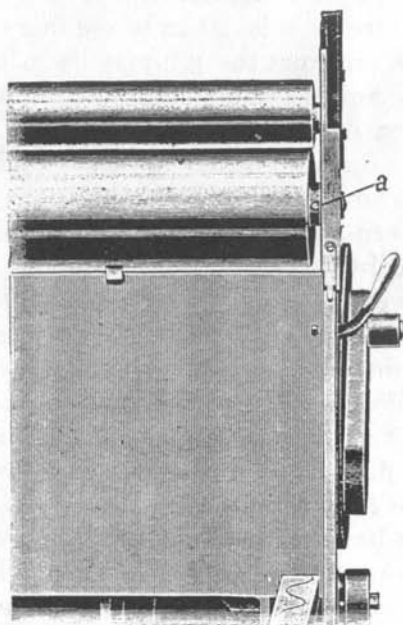


Fig. 1

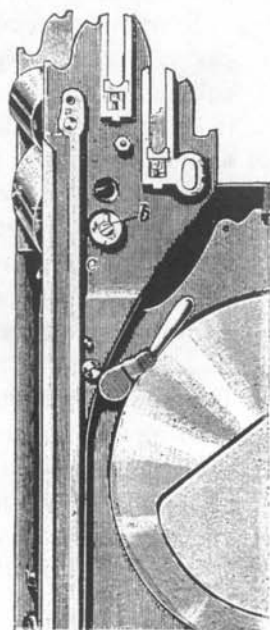


Fig. 2

*Stopping the lateral movement of the large ink drum.*

In order to stop the lateral movement of the large ink drum, the screw *a* on the drum shaft (see figure 1) between the right-hand side-frame and the ink drum, is unscrewed about  $\frac{1}{4}$ ", then remove the screw indicated at *b* in figure 2, reverse the washer *c* so that the nose projects outwards, and then replace the screw. This operation is reversed when the lateral movement of the large inking drum is to

be restored. It should not be forgotten, however, to tighten up the small screw *a* on the drum shaft again, as otherwise the machine may be damaged.

### *The roller carriage movement.*

The movement of the roller carriage is compensated by a spring *g*, thus ensuring a steady motion, free from jolting. Should the spring have been broken through any cause, the following instructions are given for inserting the spring

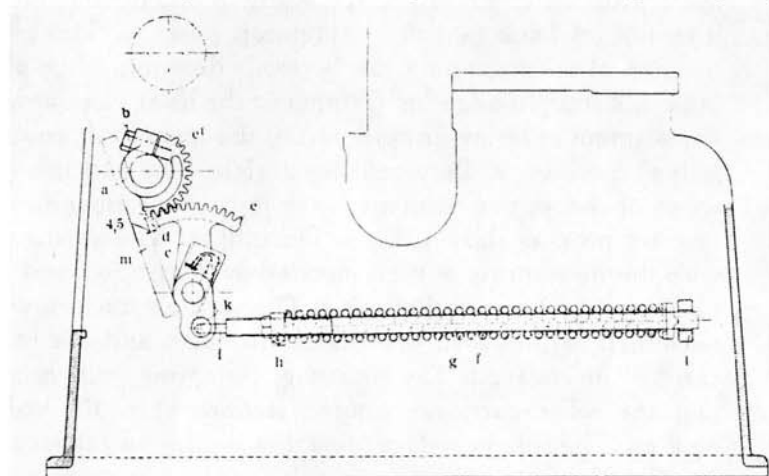


Fig. 3

and adjusting the roller carriage. The machine must be brought on the impression with the roller carriage in action, and the nut *h* loosened. The spring rod *f* is now taken out and, if necessary, the position of the roller carriage checked. For this purpose, the right side roller carriage lever arm is loosened, the lever arm and roller carriage pressed upwards, and the screw retightened. The same procedure is followed with the left lever arm. Thereupon check the toothed seg-

ments *a* and *c*. The first tooth *d* of the bottom segment *c* must be in full engagement with the first gap of the upper toothed segment *a* (see figure 3). If that is not the position, the segment *a* has been displaced. If this is the case, the screw *b* of segment *a* must be loosened, the latter turned to the required extent, and the screw *b* tightened up again. The machine is then turned into the open position, in which the tooth *e* of the bottom segment *c* must be in full engagement with the gap *e* of the top segment *a*. The machine is then turned back into the impression position. The exact position of the segment *a* can be easily determined by placing a thin straight-edge "m" (gripper or the like), close against the segment over the ground part of the lever shaft and the hub of the lever *c*. Between the straight-edge and the first tooth of the upper segment there must be a clearance of one em pica, as shown in the illustration. The spring rod with the new spring is then inserted in the guide *l* and the pin *i* into the bore of the bolt *k*. The spring *g* must now be tensioned a little with the aid of the nut *h* and the roller carriage disengaged. *The tension of the spring must be such that the roller carriage remains stationary in its highest position.* The roller carriage must now engage and disengage readily, that is to say, the spring bolt must snap easily into the steel sleeve of the operating lever. If the bolt sticks, the operating lever screw must be loosened and the lever pressed with its stop plate against the cam lever. The screw must then be tightened up again. Before starting the machine, all fixing screws must once again be gone over and tightened.

In the movement of the roller carriage by means of gear drive, care should be taken to see that the half toothed wheel inside the machine is lubricated frequently with good Stauffer grease.

### *The Connecting Rod (Safety Link) on the crank pinion.*

If the roller carriage is hindered in its downward movement, with the risk that it might be crushed by the platen, the safety device becomes operative. This device consists in the fact that the connecting rod on the crank pinion is cut away at the bearing point, i. e. weakened. The link breaks at this point if the roller carriage becomes caught in its downward travel. On the return movement however, the roller carriage is lifted into its highest position. After inserting a new connecting rod (safety link), care must be taken that the roller carriage again works correctly, as it may happen that the lever arms or the operating lever have become twisted owing to the link breaking. These parts must consequently be properly re-adjusted to ensure faultless working of the roller carriage. This may best be ascertained by turning the machine on the impression, so that the roller carriage is in its highest position. In this position the roller carriage check handle must be able to be moved easily. The spring bolt, which snaps into the steel sleeve, must admit of its being drawn out easily when the roller carriage is disengaged. When engaged, the spring bolt must just as easily snap into the steel sleeve. (For adjustment, see Roller Carriage Movement).

### *The friction clutch in sizes "A" to "D".*

The friction clutch in size "A" is a simple two-jaw type clutch, in which the clamping levers are held apart by an adjustable wedge. When re-adjusting the wedge, the upper milled nut is loosened, whilst the hexagonal nut under the wedge is tightened up.

*Directions for adjusting the Friction Clutch on the Victoria Platen Press "A".*

The adjustment of the clutch is effected as follows:

After releasing the nut *a*, the lock nut *b* is slightly unscrewed and the nut *a* then re-tightened, but not too much, as otherwise it is difficult or impossible to engage the machine. If the jaws *c* drag when running empty, the fly-wheel

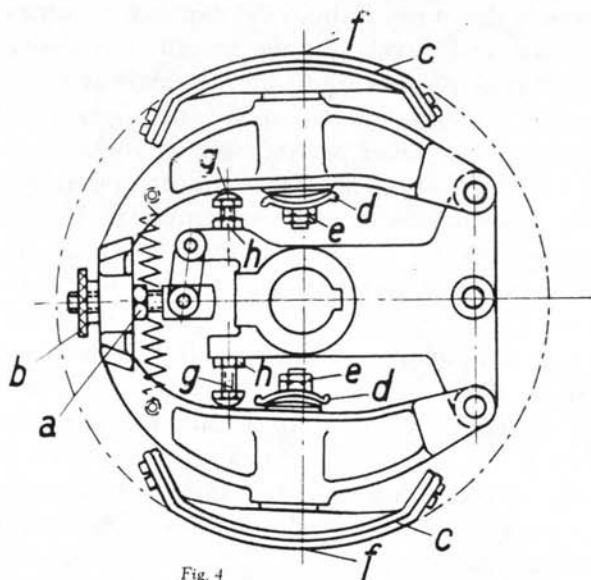


Fig. 4

must be taken off, after releasing the Stauffer box, and the position of the jaws checked as to their seating. The jaws must only move with difficulty and the supporting springs *d* must be re-tightened correspondingly by tightening up the double nuts *e*. In the disengaged position the clearance between jaws and fly wheel ring at the point *f* should be 1 mm. The set screws *g* and lock nuts *h* must be tightened accordingly.

*Directions for adjusting the Friction Clutch on the Victoria Platen Press "B".*

The adjustment of the drive-ring *a* is done by means of the wedge *b*, which is adjusted outwards by the nut *e* whenever clutch-slip is experienced. By such regulation of the wedge *b*, the drive-ring *a* is forced out further when the clutch is engaged

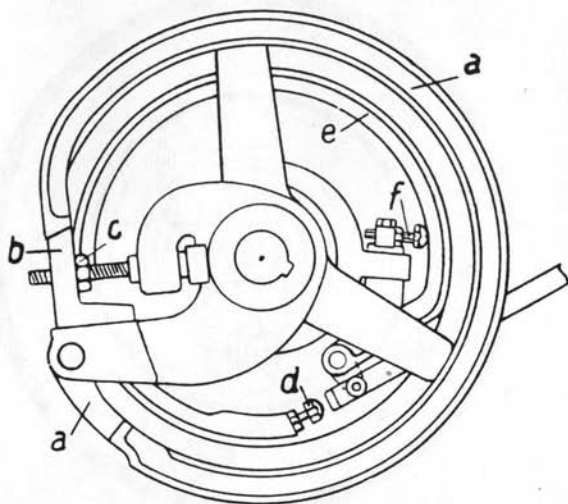


Fig. 5

It must not be tightened too much or it will be difficult or impossible to engage the machine.

The brake adjustment screw *d* should only be regulated if, because of wear and tear of the brake ring, the distance of movement of the starter handle is greater than 11". This screw should then be unscrewed until the distance of movement is about 8 <sup>1</sup>/<sub>4</sub>".

The friction clutch in sizes "B" to "D" must at first be examined occasionally during operation, to see whether it is running hot. If the machine has two fly-wheels (Victoria D), under no circumstances must only one of them be driven by a belt, but the machine must be driven by a belt on both sides, right and left. On the left hand side of the machine a lever is provided for starting and stopping the machine.

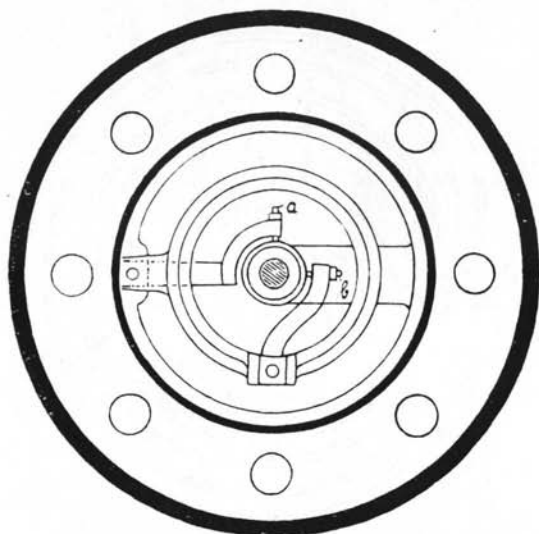


Fig. 6

By pulling the lever the machine is coupled up with the free running fly wheel and set in motion, while the inverse motion of the lever at once brings the machine to a standstill. Should it happen in the course of time that the machine fails to start at once when the clutch is thrown in, it will be due to the friction-ring not pressing firmly enough against the inner face of the free running fly-wheel. In this case the small set screw *a* of the outer lever (cam lever), see figure 4,



which rises on the coupling cone, should be re-set and the lock nut tightened up again. If, on the contrary, on uncoupling, the machine does not stop immediately, (that is, the brake ring does not act sufficiently), the screw *b* of the inner lever (brake lever) which rises on the inner sloping surface of the coupling cone, must be tightened up slightly and the lock nut then screwed tight. If the fly-wheel drags on the friction-ring, then the machine has doubtless not been completely uncoupled, which may easily occur when it is stopped and started in jerks (inched). If, as a result of excessive pressure, the press becomes stuck on the impression, disengage the friction clutch, and if the press is driven by an electric motor, switch off the current and or throw off the driving belt. The fly-wheel is then turned until the  $\frac{3}{4}$ " hole is in register with the hole of the same size in the wide spoke of the friction-ring, and the square bolt supplied with the machine inserted into these holes. In this way the fly-wheel and friction-ring are coupled together so that a slipping of the fly-wheel is rendered impossible after the clutch has again been engaged by pulling the striker lever. According to whether the machine came to a stop prior to going on the impression or at maximum impression, it is turned backwards or forwards with the aid of the fly-wheel. Having released the machine, the bolt is removed. If the machine stops on the impression, under normal conditions, the screw *a* must be re-adjusted as described above.

If the machine is provided with two fly-wheels (Victoria D), it is of importance, in order to ensure its proper working, that the friction clutches are equally adjusted so as to act uniformly on both sides.

In course of time, dust gradually accumulates between the friction-ring and the loose running fly-wheel, and forms into

a tough grease with the oil, with the result that the fly-wheel slips on the friction-ring. To remove this grease, the Stauffer box must be unscrewed from the fly-wheel shaft and, after removing the washer, the fly-wheel drawn off the shaft. All parts must be thoroughly cleaned with paraffin and wiped clean with a dry rag. The fly-wheel is then re-fitted on the shaft, the washer replaced, and the Stauffer box screwed tight.

## Avoiding breakages.

Every machine is subjected to a careful test and is run for a considerable time before leaving our Factory. If all parts of the machine are given proper attention, breakages or other damage can scarcely occur. Damage is especially liable to occur if the pressure of the forme is not in the centre of the printing platen, or if the forme is not carefully locked, or if the grippers are not properly fastened, or if spanners or the oil-can are carelessly left lying about, or if any other objects have been placed inside the machine. Also, the bad practice frequently met with of leaning chases, galleys, rollers and the like, against a stationary press may lead to breakages when the press is started. Moreover, in addition to regular oiling and cleaning, the machine must be carefully examined from time to time to ensure that the screws are properly tightened. The reciprocator must always be carefully handled. If it is clumsily placed on end, the crescent may easily be damaged, and the operation of the reciprocator impaired.

After making ready, all pieces of paper, parts of flongs, etc. which are in the path of travel of the platen, must be carefully wiped away, and the track oiled.

### *Repairs and spare parts.*

Should any part of the press break or become unserviceable, we must warn users strongly against having the repairs, and especially the manufacture of new parts, carried out by any locksmith or mechanic, whether for the sake of convenience or so as to get the machine quickly started again. They can rarely make the parts to fit as accurately as the mechanism of a platen press requires and so as to ensure proper co-operation of all parts. As every individual part of our presses is made to a definite template or gauge, and all machine parts are kept in stock, it is possible to replace a damaged part by an accurately fitting new part, by merely indicating the number in accordance with our detailed list of parts. This part will be despatched immediately on receipt of the order and can usually be fitted in the machine by any capable printer without difficulty.

## Care of the electric motors.

### *The commutator.*

The surface of the commutator should always be clean and smooth and should only in the rarest cases, when irregularities appear, be polished with finest grade of sandpaper. After polishing, the dust must be carefully blown away with bellows in such a way as to prevent it entering the armature. Wipe the commutator with a clean linen rag and also remove any dust adhering to the brushes and brush holders. Another clean linen rag coated with a very small quantity of pure vaseline should then be used for wiping the commutator further and for slightly greasing it. It is pointed out that the commutator must only have a thin film of grease, as excessive grease makes the contact between the brushes difficult and

causes commutator-sparking. The ordinary cleaning of the commutator, which should be done daily on ceasing work, can be effected with a linen rag dipped in petrol or paraffin.

### *Brushes.*

The brush holders must be adjusted in such a way that the carbon brushes make contact with the whole of their surface, but without pressing too hard. A box spanner is supplied to be used for adjusting the brushes.

### *The starter and regulating rheostat*

is placed in a very handy position on the delivery table bracket. The connection between motor and starter must be in accordance with the wiring diagram supplied with each drive. Repeated switching on and off on the first contacts (inching) should so far as possible be avoided, as otherwise scorching of the contacts or of the brushes occurs. The protector cap on the starter should be removed every two weeks, the contact paths wiped and coated with a film of oil.

## Instructions for gas heating.

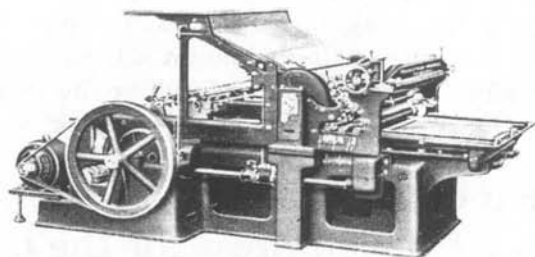
In order to lower the heating tube for igniting the gas, the thumb screw which fixes the heating tube by means of a clip to the round iron rod, must be loosened. After lighting, it must be again raised, so that the air holes in the nozzles are just under the edge of the plate. As in the case of every other gas flame, it may happen in time that the duct of the nozzles through which the gas passes becomes choked so that the pointed flame no longer burns at full strength. The burner must then be unscrewed and the small duct in question cleaned out with a thin wire of about  $\frac{1}{2}$  mm. thickness.

Faulty heating may also be due to the fact that other gas flames are fed direct from the gas supply pipe, so that the pressure is too weak, in which case, the pipe in question must be made larger. In addition it is possible that the gas has become ignited at the nozzle where the air enters, with the result that the heating is again too weak.

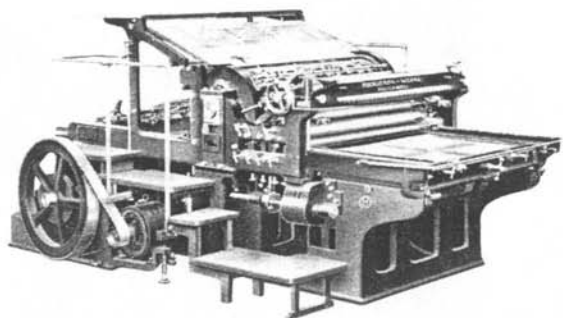
## When erecting the Victoria platen press for the first time

or when changing over from shafting to electric drive, the following points should be borne in mind. With electric drive, the belt must run on the fly-wheel, but in case of driving from line-shafting, it must be laid on the small pulley cast on the fly-wheel.

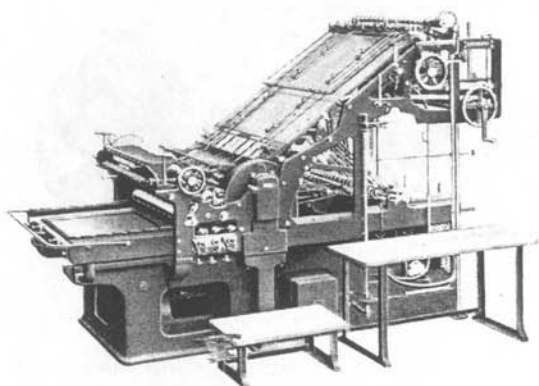
*Besides Victoria Platen Presses we also build  
the following Victoria printing machines.*



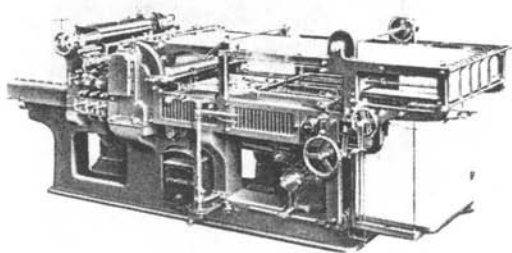
*Victoria Original Fast Running Cylinder Press,*  
with positive roller movement, 4 runner-tracks, parallel catch fork  
movement, unique gripper system, cylindrical inking gear for 3 inking  
rollers, for high-class jobbing, catalogue, and illustration work.



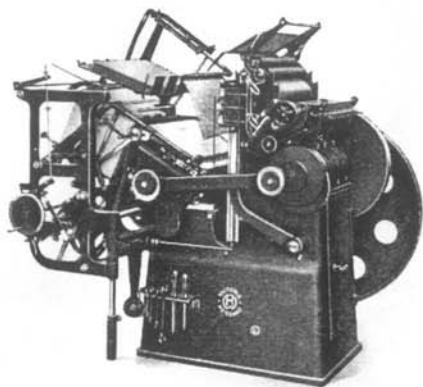
*Victoria Art Cylinder Press (Special Model)*  
with 6 runner-tracks, adjustable printing bed, fixed printing cylinder,  
double cylindrical inking gear for 4 inking rollers, for the finest and  
heaviest half-tone and colour work, and for printing State and Banking  
Certificates, Securities, and the like special work.



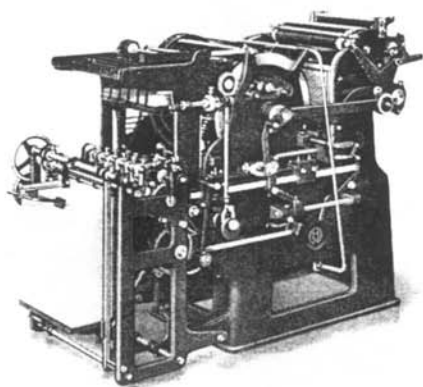
*Victoria Original Fast Running Cylinder Press,  
with impression check and Victoria Automatic Sheet-Feeder.*



*Victoria-Front*  
A full automatic single unit letterpress printing machine



*Victoria-Original Auto-Jobber*



*Kobold Automatic Platen.*

with automatic pile feeding and delivery apparatus.

This entirely automatic unit can be used equally well for runs of any size, and for thin and thick kinds of paper.

3000 impressions per hour, 5000 with double feed.

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