



INSTRUCTION

BOOK

INSTRUCTION
CARE and OPERATION of
KLUGE AUTOMATIC
PLATEN PRESS
FEEDERS

.....
CABLE ADDRESS "BRANDKLUGE, ST. PAUL"
.....

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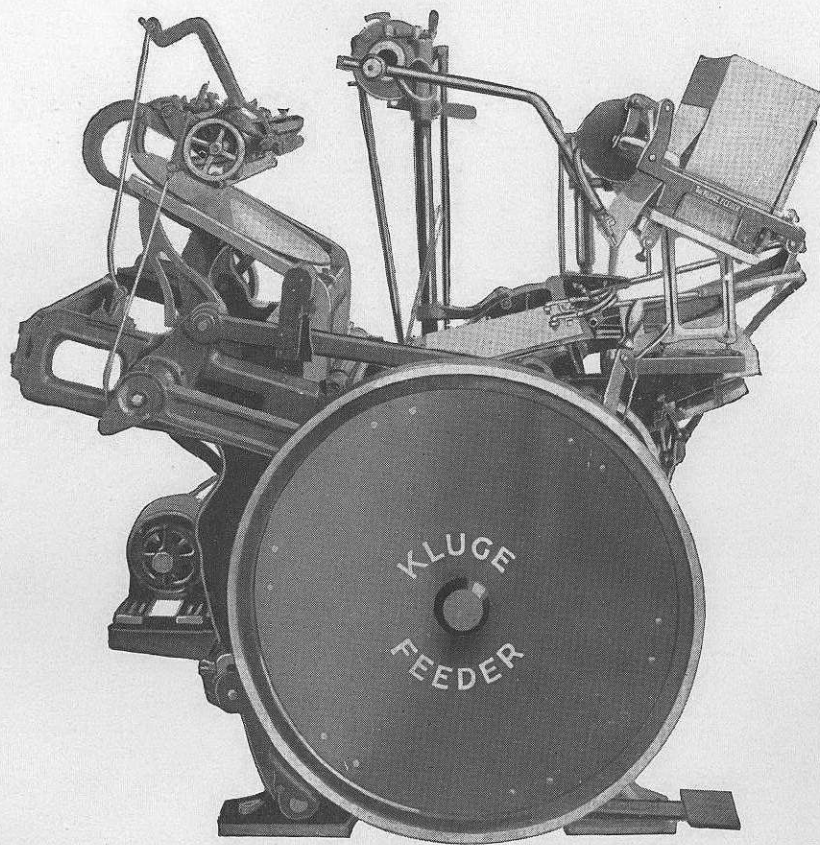
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HOW TO OPERATE and MAINTAIN the KLUGE FEEDER



THE principles of KLUGE operation make it the easiest Automatic Feeder to set and operate, the feeding and delivery both being accomplished by suction. The simplicity of KLUGE operation makes it practical on short as well as long runs and practically every job printed on a platen press is handled more easily when automatically fed with a KLUGE.

Whether you are printing a 2x3-inch card on the 10x15 or a full 12x18½ sheet on the 12x18, you can count on the KLUGE feeding the job; in fact,

oversize sheets extending over top of platen can be fed, which makes the preferred dip-feeding of letter-heads easy on the 10x15. No matter whether it is tissue, onion skin, envelopes or 8-ply cardboard, the KLUGE will feed your job. This wide range of usefulness, combined with its ease of operation, is giving the KLUGE preference with every user of a platen press.

*Worth
Noting*

Make-ready is done just as for hand-feeding, with two exceptions. Instead of a fixed stationary side guide, the KLUGE side guide is used (attached after all make-ready is finished) and a sheet-holder tongue (of desired length) is attached. With guides and sheet-holder tongue placed and make-ready finished, the feeder is set by

1. Lowering feeding arm, adjusting suction tips and setting suction release valve,
2. Adjusting suction delivery,
3. Adjusting magazine guides,
4. Setting of stock elevator and refinement of suction release is then done with press in operation.

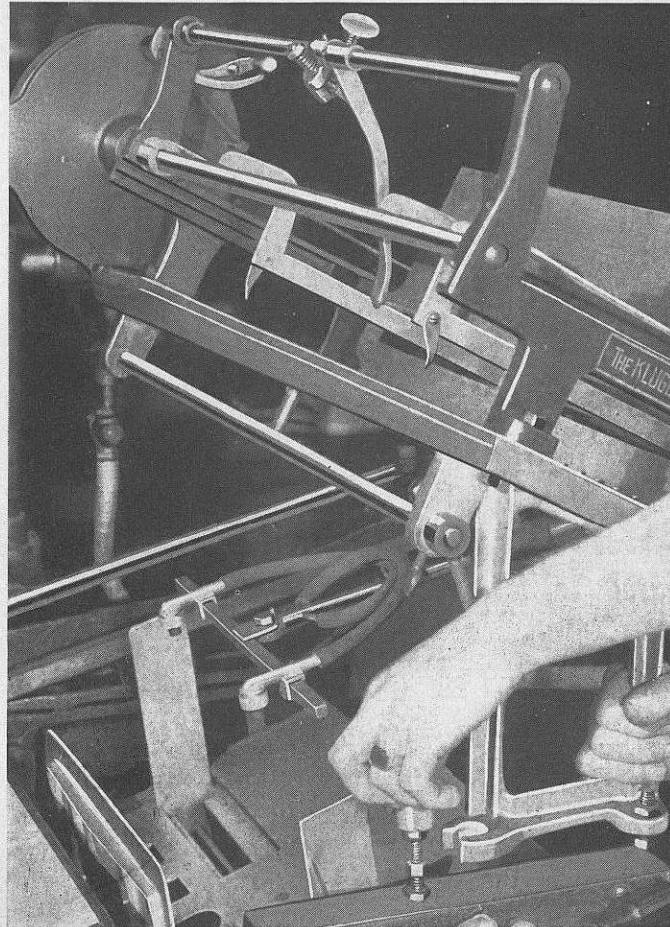
We are picturing all operations from the opening of the Feeder for make-ready, to the setting of the stock magazine elevator, and a careful study of the following pages should enable you to operate the KLUGE successfully with a little practice on various stocks.

*How to
Start*

The numbers quoted in the following instructions refer to the various parts as listed in the Kluge Parts List, copy of which should accompany this instruction book.

The KLUGE
AUTOMATIC JOB PRESS
FEEDER

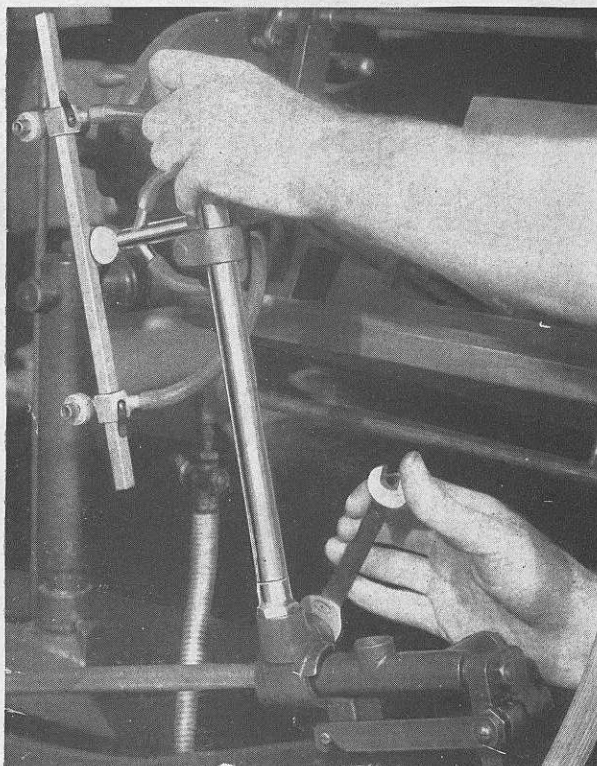
No. 1
To Open
For Make-
Ready



To open Kluge Unit for make-ready, run delivery arm forward by turning press, so magazine can be opened. Loosen the thumb nut, 471, as shown in Cut No. 1 and swing the stock magazine to the right. Now draw back the delivery arm, by grasping it near the swing joint, and lock it, by hooking delivery lock, 266, on pin, 257A, as shown in Cut 2, then raise it upright and tighten clamp nut, 256, as in Cut 3.



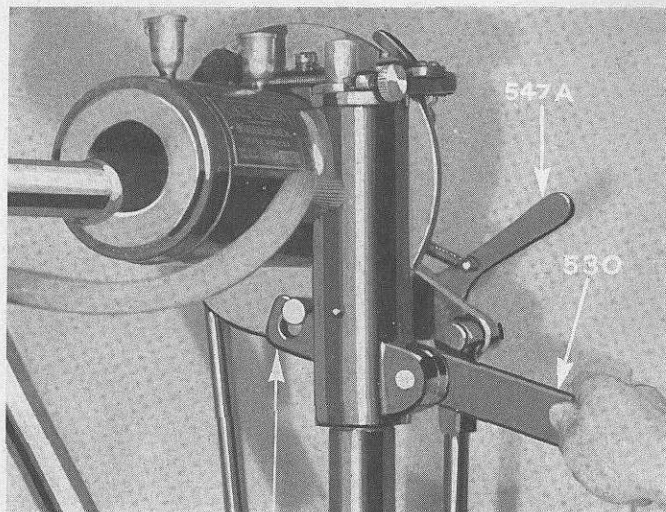
No. 2
Locking
Delivery



No. 3
Delivery
Raised

The KLUGE
AUTOMATIC JOB PRESS
FEEDER

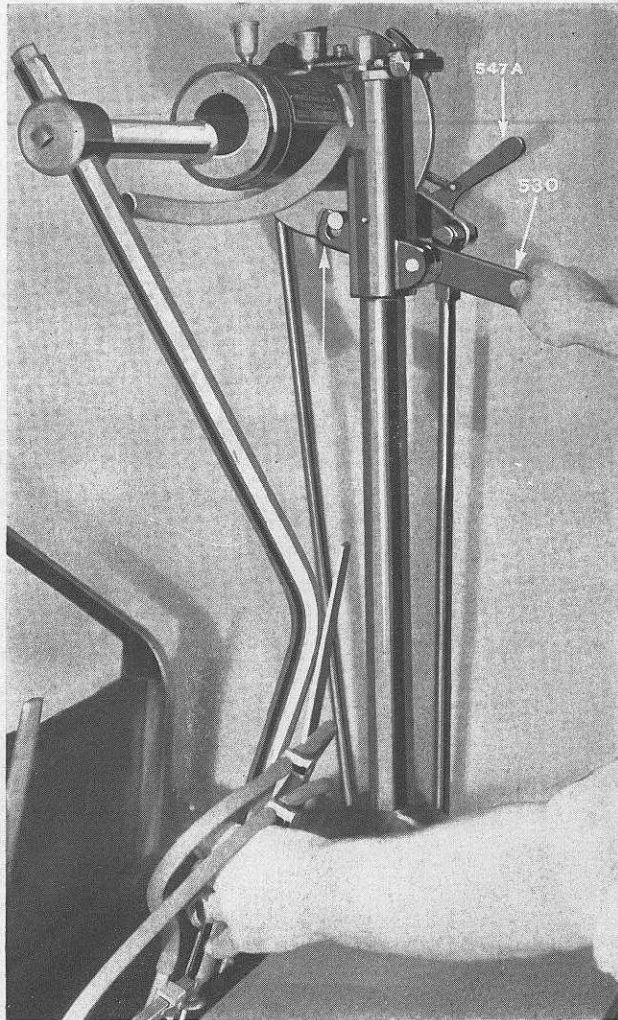
No. 4
Locking
the Head



Next lock the head, as shown in Cut 4, by turning press forward until lever, 530, and stud on eccentric, 548, are engaged by forcing handle No. 530 down as far as it will go. Release the latch, No. 547A, and raise the feeder arm up as far as it will go. See Cuts 4 and 5.

LOCKING THE HEAD IS THE ONE PRECAUTION WHICH MUST BE OBSERVED, TO PREVENT DAMAGE IF OPERATED DURING A MAKE-READY. FORM THE HABIT OF LOCKING THE HEAD BEFORE RAISING THE FEEDER ARM. (See Cuts 4 and 5). Follow these instructions and the press may be operated as desired, the same as any open press. When returning feeder arm to the operating position, the No. 547A latch will automatically engage, but the eccentric action must be released by unlocking the head.

Type forms should be locked so that the printed sheet will be in center of platen from left to right. Where the sheets are unusually small the form should be locked so that the guides are not more than 21 picas from lower edge of the platen. At this range the Kluge is most efficient, but adjustment can be modified to suit requirements.



No. 5
Ready to
Raise
Feeding
Arm

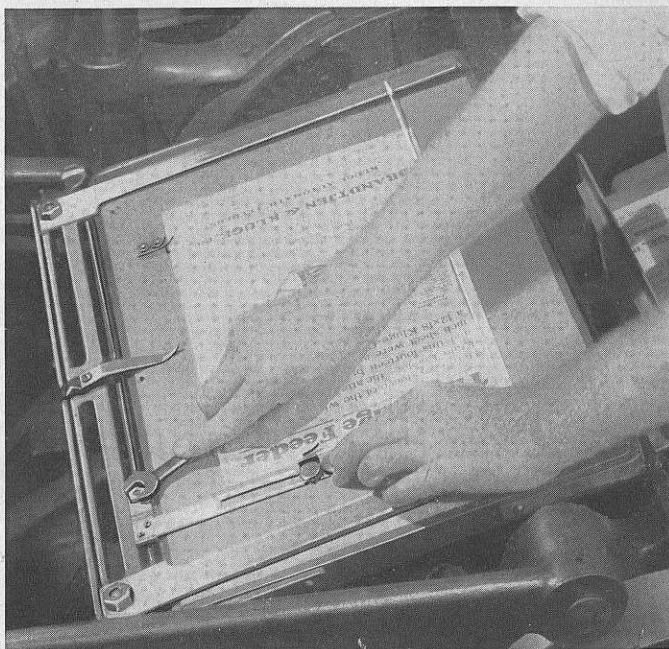
This setting will usually permit you to lock your forms centrally on the platen.

Set the gauge pins midway between the center tongue and edge of sheet.

After placing both bottom guides, and all under tympan make-ready is finished, attach a sheet-holder tongue of a length that will just clear the guide line when grippers are about half way depressed (see Cut 7). With this setting, the tongue, 379 to 384, should clear

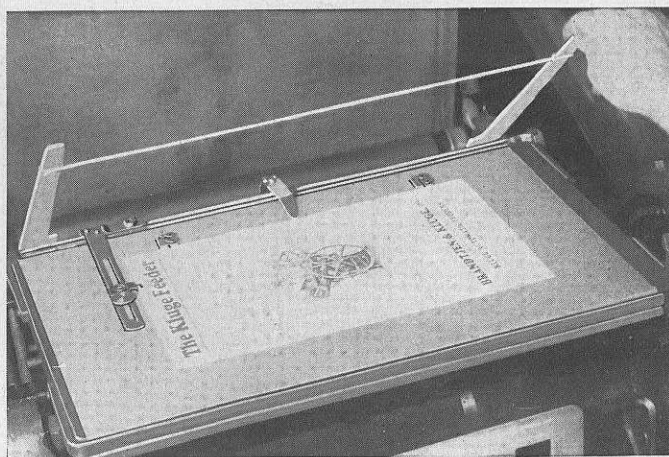
The KLUGE
AUTOMATIC JOB PRESS
FEEDER

No. 6
Setting
Kluge
Side Guide



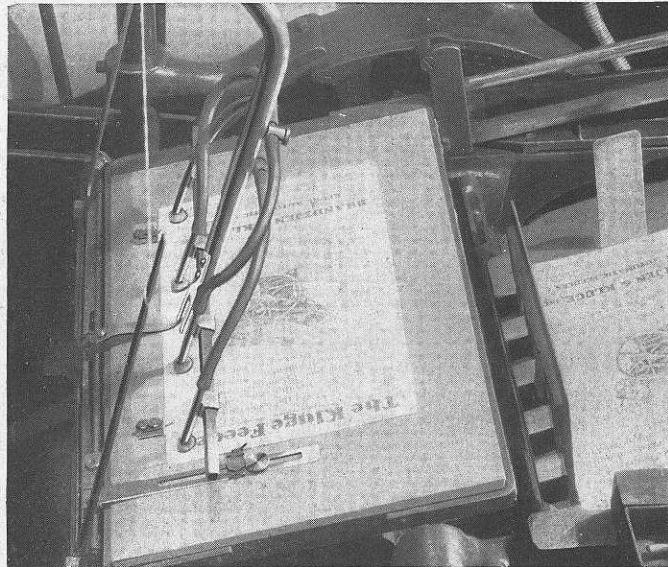
before side guide touches sheet. Next set the Kluge side guide as shown in Cut 6, holding grippers down on the platen and the side guide flat on tympan, tighten side guide on the exact register position. When the grippers are released, the side guide will recede to the left of registered position. Adjustment can be made for six

No. 7
Grippers
Half-way
Depressed



points in either direction by the eccentric on the Perfect Side Register Gauge No. 376.

This operation covers left-hand register. To obtain right-hand register, remove register cam No. 356 and replace with No. 355. This will give register rod a lateral motion to left instead of right. Then remove side register gauge, 376, and bracket, 374-375, from platen and unscrew the side register gauge bracket, 374, reversing its direction so that screw holes are again in line. Remove and reverse the side register gauge, 376, and attach whole to right side of platen.



No. 8
Suction
Tips Set

SETTING THE FEEDING ARM

To set the feeding arm, first lower feeder arm, 545, reversing instructions given for raising; turn press backward until suction fingers are in center of the platen. Then place sheet against lower gauges and run feeding arm forward until suction tips are $\frac{3}{8}$ of an inch above the lower gauges.

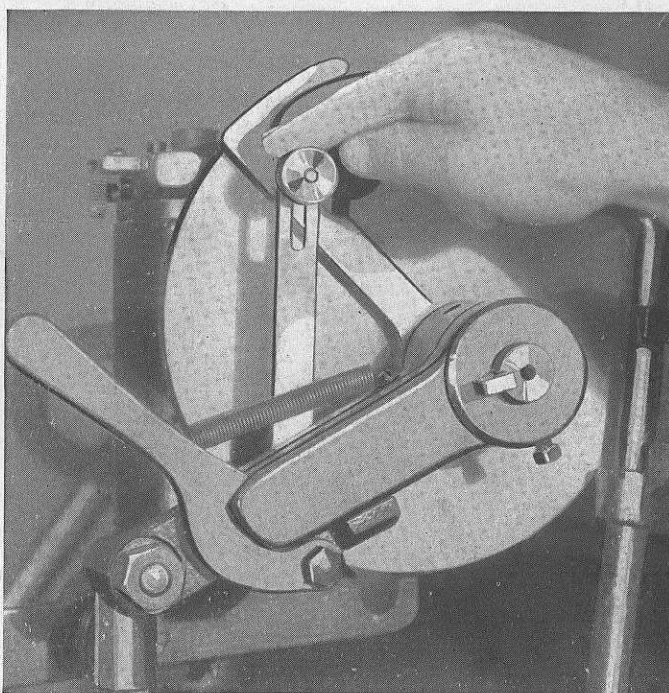
Place outer suction tips of feeder arm half way between lower gauge pins and outer edge of sheet, and place the two center tips

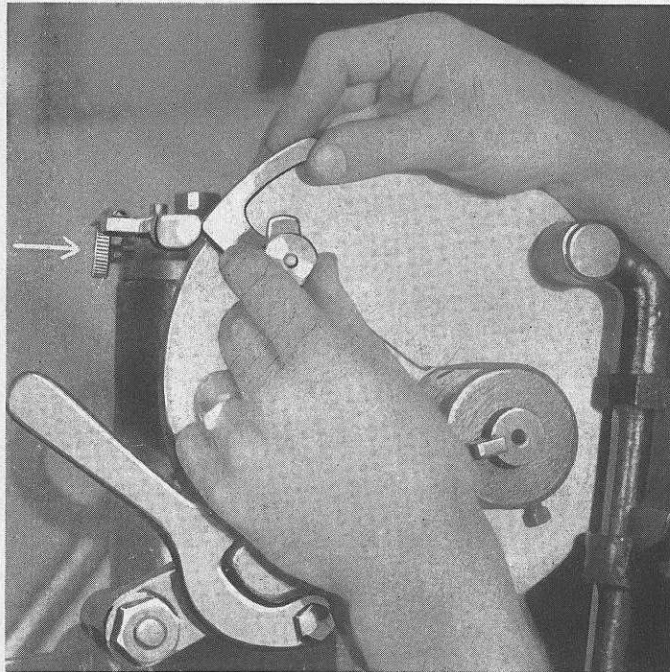
inside lower gauge pins, dividing space equally. Adjust dummy suction foot, 580, (not shown in illustration) to insure sheet being placed under side guide. These positions may have to be varied according to weight of stock.

Cut 8 shows the feeding arm with suction tips in position for the job pictured. This view shows the suction tips 577 and 577A, which are used for feeding all weights of paper up to two or three-ply cardboard. For heavier stock, which these aluminium suction tips will not carry, an extra set with bell-shaped rubber suckers, 582, are furnished.

To change from one set to the other it is only necessary to detach the individual hose, slide suckers off bar and put on correct suckers. Suction tips are held in place by tension springs and may be set without the use of tools. The valves on the feeder arm permit the use of two or more suction tips.

No. 9
Setting
the Suction
Release
Valve





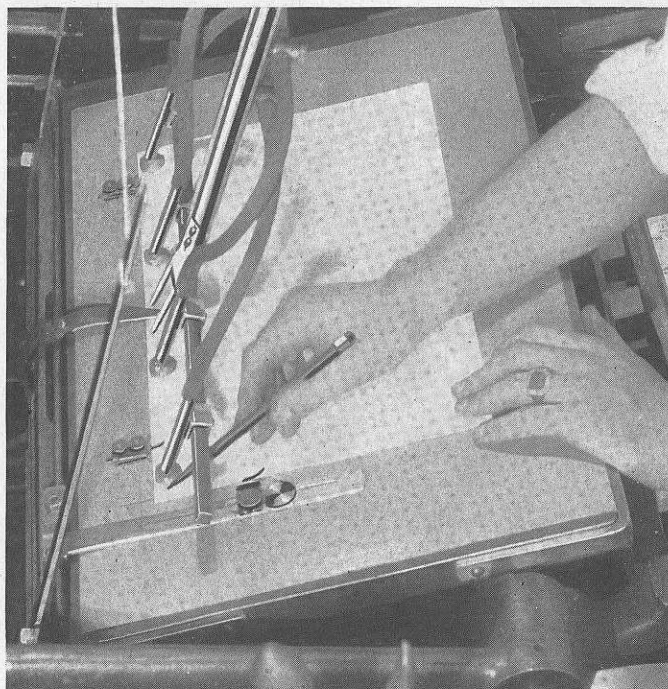
No. 10
Suction
Release
Valve Set

At this same point (shown in Cut 8) the suction release valve should be set. Loosen the thumb-nut, 533, shown in Cut 9, and raise the trip stop lever, 510, as far as it will go, then push suction release lever, 535, forward until trip stop lever drops into position. Place suction release lever, 535, so as to just contact with trip lever, 517, and tighten thumb nut, 533.

Full control of the sheet, from the pick-up in the magazine to the release at the guides, is obtained by means of the suction control valves in the head. The amount of suction is never varied, and except for the suction release setting described, the action of the head valve is entirely automatic.

The arrow in Cut 10, points to the trip lever regulating screw, 518, which is used after the press is in operation to refine the suction release setting as required. If sheets are hitting the guides too hard, turn the screw clock-wise (to right) which releases the suction grip

No. 11
Mark Sheet
for Magazine
Guide
Setting

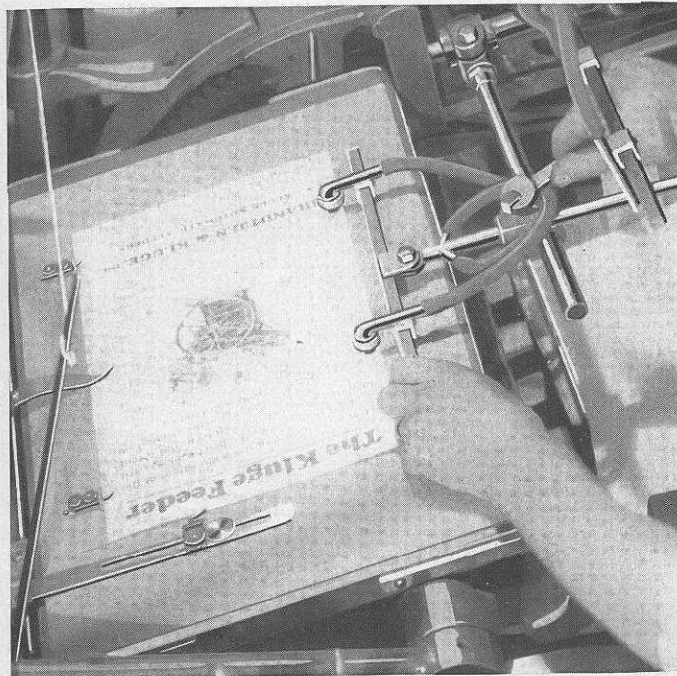


quicker. If sheets release before reaching the guides, turn screw counter clock-wise (to left) until sheet is released against guide as desired. This micrometer setting is used to adjust the suction release for various press speeds or weights of stock to be fed.

Place sheet of stock to be printed in position half way between register position and side guide, lower suction tips close to the guide line, and mark position of the first suction tip as shown in Cut 11. Retain this marked sheet for magazine guide setting.

SETTING THE DELIVERY ARM

In setting the delivery arm, which is now swung up in its locked position, loosen clamp nut, swing arm down and tighten clamp nut. Release delivery lock bolt and turn press forward to the point where the delivery assembly is at its lowest position, just before starting its



No. 12
Setting
Delivery
Arm

return movement. Adjust delivery suckers for contact on any blank spot in the upper section of the sheet, set the delivery assembly, by loosening clamp nut, 252, so that the suction tips will come within four points of the tympan; then tighten clamp-nut snugly (see Cut 12). Test your delivery setting by backing press slightly and giving fly wheel a short spin forward, which should deliver the test sheet.

Delivery suction tips should not be set so that they will rub on the tympan; keep them from two or four points off, which will avoid unnecessary wear on the rubber tips.

Use small rubber suction tips, 244, on all paper and lightweight stock; for cardboard and heavyweight stocks substitute the large rubber suction tips, 244A. On highly finished or glazed papers, it is better to use the large delivery suction tips, if possible.

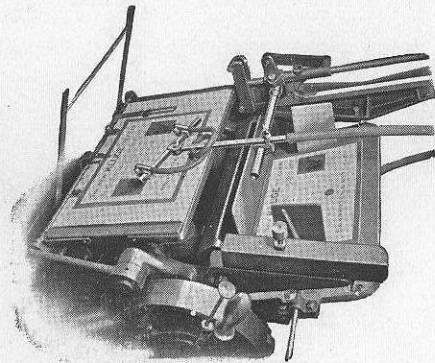
Delivery pick-up bar, 249, can be set at any desired angle by

KLUGE
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FEEDER

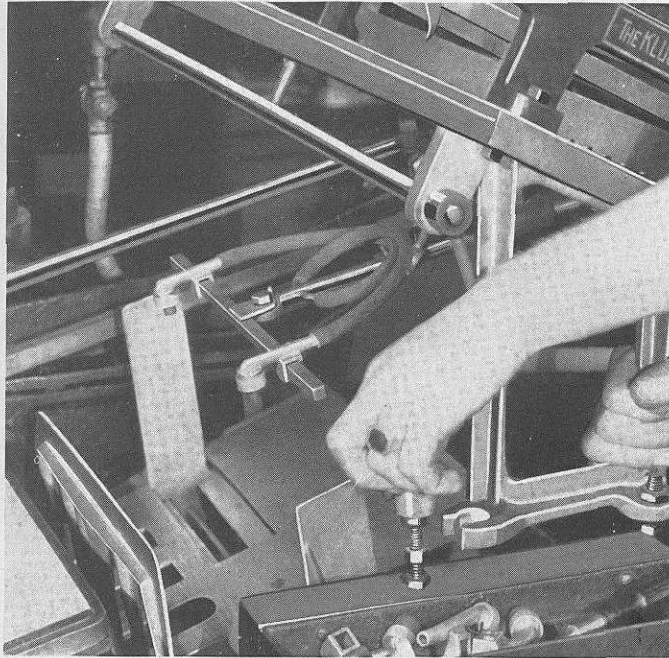
loosening delivery pick-up adjustable bar cap screw, 250, and tightening in position required. With the side, forward and rear adjustment of the delivery pick-up rod clamp, 251, the swivel of the adjustable bar, 249, and the sliding of the suction tips, any point or points on the platen can be reached. One suction tip can be used, if necessary, by capping the corresponding suction tube.

Two styles of rubber suction tips (suckers) are furnished. The large bell-shaped suckers (582) are used on the feeding arm for cardboard and heavyweight stock, and should also be used on the delivery pick-up for the same stock. The straight rubber suckers, 244, are used in the delivery pickup for all paper and lightweight stock, and small-sized card work. The small rubber sucker requires a blank spot only $\frac{3}{8}$ " in diameter for delivery pick-up, and is used in cases where a close setting must be made.

Where the $\frac{3}{8}$ " spot is not available, glue a piece of sandpaper on delivery tips 244 and 244A, thereby eliminating smudging.



Delivery set at an angle



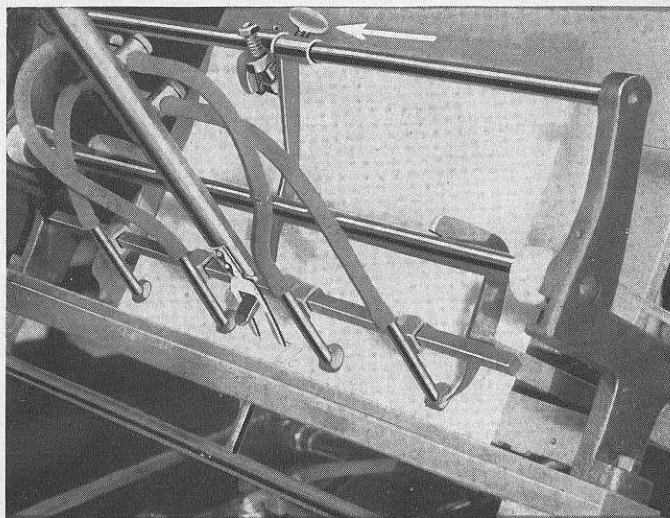
No. 13
Closing
Elevator

In adjusting the magazine, turn press until the delivery arm does not interfere, then close magazine and tighten thumb nut, 471, as shown in Cut 13.

Throw magazine side guides, 408 and 412, to their extreme outward position. Now by turning elevator crank, 445, clockwise, place the marked sheet (as shown in Cut 11) in the magazine and turn press forward until feeder arm is in position at the magazine. Do not move any suction tips, but place marked sheet in position to line up with the first suction tip as indicated, set the left magazine guide accordingly. If this is properly done, sheets will be fed to the bottom guides a trifle to the left of the actual register position.

You are now ready to load stock magazine; grasp elevator pawl, 417, release lever, 437, and pull elevator advancing plate shaft pull handle, 461, to the rear, adjust right stock guide, 408, and start the press.

No. 14
Magazine
Correctly
Set



SETTING THE MAGAZINE

Magazine should not be loaded beyond lower comber marks cut in magazine base plate, 401, about $1\frac{1}{2}$ " from upper edge of base plate. If there is not sufficient stock to fill magazine, elevator advancing plate, 456, may be manually advanced by turning the elevator crank clockwise.

The stock elevator advances automatically as may be required by any weight of stock, the stopping point being regulated by the thumb screw, 420A, at the back center of top bar, shown in Cut 14. Turning thumb screw to the right lowers stock in magazine, turning to the left raises stock pile toward suction pick-up tips. This adjustment when correctly made places sheets within $\frac{1}{4}$ " of the suction pick-up tips, as in Cut 14.

Located beneath the magazine is a blower pipe, 462, controlled by a regulating valve, 477, under front right corner of magazine. The blower pipe and air nozzle are swivelled and can be adjusted by loosening the thumb nut, 462A, beneath upper left corner of magazine, and swinging blower pipe handle 465. Now turn on

sufficient air through blower to slightly separate stock and adjust blower nozzle, 463, so that the top sheets of stock will be freely floating.

The comber fingers (or separator springs), 410, attached to the side gauge bar, should be set in toward center of pile just far enough to insure the stock being combed out properly.

Floating the upper sheets of stock reduces the distance from suction tips slightly and when control valve, 290, is opened, sheets should be picked up and fed singly. If not feeding, advance stock by a slight left turn of elevator thumb screw, 420A, until picked up as desired. Follow this method when setting magazine for all ordinary weights of paper and a little experimenting will result in setting magazine for any stock so as to feed single sheets only. Never have elevator setting so high that suction tips depress the stock. Keep stock as far back as possible and use blower to float top sheet as required.

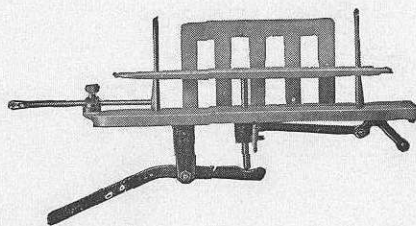
Feeder can now be turned to its "on" position.

When feeding is started note how sheets are hitting lower guides and adjust suction release trip lever regulating screw, 518, as described on a previous page until proper results are obtained. Remember, magazine elevator and suction release micrometer setting are made with press in operation at desired speed. If feeding more than one sheet at a time the stock is too far forward in magazine. Lower by releasing elevator pawl, 437, and dropping stock, turn thumb screw, 420A, to right and set as directed. If sheets are inclined to stick together set comber springs, 410, on magazine guides to brush edges of sheets in passing.

There is a center comber spring, 485, extending through opening for air nozzle which may be used as an auxiliary separator.

SETTING THE JOGGER

When printed sheet is delivered into jogger, set right-hand jogger plate, 329, to the right side of sheet and adjust left jogger guide, 331. Then by means of the thumb screw, 314, under the base plate, adjust the rear jogger plate, 332, by means of rear jogger adjusting rod, 311. The sub-table is adjustable up and down through the elevator handle, 310, projecting at left.



TO PREPARE PRESS FOR HAND FEEDING

Open press as previously described for make-ready.

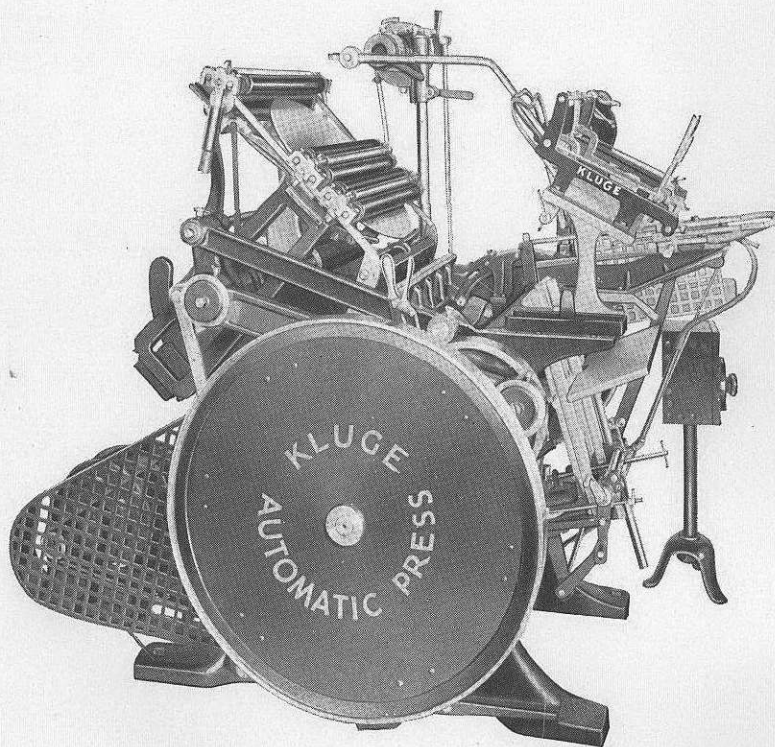
Delivery pick-up suction rod, 254, can be unscrewed from delivery pick-up swing joint, 255.

Remove magazine elevator connecting rod, 493, from feeding-arm rocker arm, 62.

Remove lower flexible tubing, 285, from magazine-blower regulating valve nipple, 478. Magazine post, 479, can then be removed from gear guard and feed-board substituted. Feeder cut-off valve, 290, should be turned to "on" position.

The Kluge is equipped with a feed cut-off valve lever, 290, at the right of machine, supported by the rear guard. When this handle is turned to extreme right it is in the "off" position and when turned to left is in the feeding or "on" position.

This valve can be used at any time to interrupt or start feeder. In its "off" position press will continue to throw off until it is reversed.



The KLUGE AUTOMATIC PRESS
with which is incorporated the
KLUGE AUTOMATIC FEEDER

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