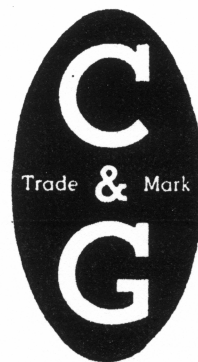


C&G No. 3-A  
Deluxe Model  
Saw Trimmer



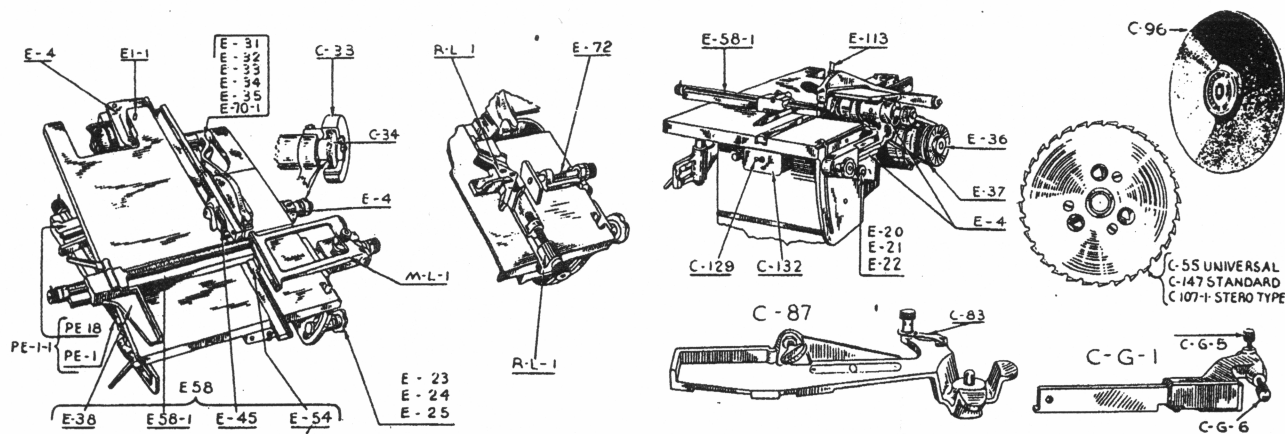
**INSTRUCTIONS**  
For the Operation  
and care of C & G  
Model 3A  
Saw Trimmer

**THE MORRISON COMPANY**

125 W. Melvina St.

Milwaukee 12, Wisconsin

# DIAGRAM OF PARTS FOR C&G No. 3-A SAW TRIMMER



## Foreword

Your C&G MODEL 3-A SAW TRIMMER has been tested before leaving the factory. Advise manufacturer immediately if everything is not in order.

You have purchased a high grade piece of equipment. We suggest you treat it as such. For continued accuracy and long life, do not abuse your machine—keep it clean—oil regularly and keep saw blades sharp.

### TO ATTACH SAW BLADE TO SPINDLE:

1. Swing Saw Guard and Sub-table back, out of position.
2. Raise Saw Bracket (E-4) to highest position.
3. Place Stop Pin (E-1-1) in rear upper hole on side of table, holding Saw Bracket in high position.
4. Lock Spindle Shaft with Spindle Lock (pin just below Spindle Shaft is pushed up into one of the four holes in the shaft).
5. Spin saw blade on shaft, seating it securely with a slight jerk.
6. To remove saw blade assembly, lock spindle shaft and remove with spanner wrench (crescent shaped).

*LEFT HAND THREAD ON SAW HUB*  
The saw arm has two indexed positions on the side of the table into which the Index Pin (E-20) will fall. The upper position is for cutting and trimming, the lower position is for plate cutting. To undercut, determine depth of desired cut and lock arm with Hand Knob (E-25).

### TO CLAMP WORK:

To lock Workholding Vise:

1. Place material between Vise Jaw (E-54) and Gauge Frame.
  2. Push Vise against material and pull locking lever forward.
- Extension Vise Jaw Bar may be purchased that will clamp material up to 16 inches.

### TO ADJUST TRIMMERS AND RESET GAUGES:

When saw blade and trimmer knives are sharpened and placed back in position, be sure the trimmer

knives project equally not more than one-half point beyond cutting edge of the saw blade.

### TO SET TRIMMERS:

1. Place any waste slug against Pica End Gauge (E-38) at any measure, then clamp for sawing.
2. Saw, only going through saw blade. **Do not trim.**
3. Reclamp slug with Pica End Gauge set back one-half point.
4. Set each trimmer knife against slug and tighten securely with trimmer clamp.

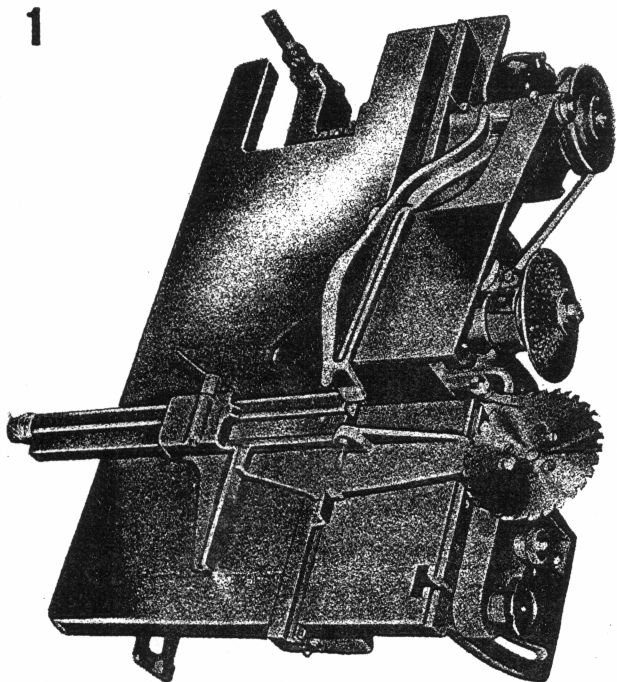
### TO SET GAUGES AFTER ADJUSTING TRIMMERS:

1. Saw and trim a slug. Return to starting position with slug still clamped.
2. Place Miter and Line-up Gauge (M-L-1) on the machine. (Miter and Line-up Gauge held in position by engaging lock pin of Miter and Line-up Gauge with friction clamp under front of table.)
3. Turn micrometer dial on Miter and Line-up Gauge until its abutment stops against the trimmed slug.
4. Dial should read zero. Loosen set-screw on dial collar and turn collar to zero, then tighten screw.
5. Remove slug but do not change position of the Miter and Line-up Gauge.
6. Remove Vise Jaw Bar (E-54).
7. Bring Pica End Gauge (E-38) against abutment of Miter and Line-up Gauge. Set dial collar of 73-Pica Gauge to zero.

When gauges are set in this position, your readings will be zero on the Miter and Line-up Gauge, zero on the End Gauge and zero on the Pica Scale.



1



### TO ADJUST 135-PICA EXTENSION GAUGE (PE-1-1):

1. Clamp a husky piece of material with Pica End Gauge set at 73 picas.
2. Remove End Gauge (squeeze handle tight and lift).
3. Bring Extension Gauge into position (swing parallel to regular gauge frame, lift up and lock with friction clamp on horizontal shaft).
4. Bring 135 Pica Gauge Slide (PE-18) against material. Set 135-pica dial collar to zero.

### TO GRIND UNIVERSAL SAW BLADE:

1. Use dish emery wheel, dish facing machine.
2. Set Pica End Gauge to 28 picas. Clamp Grinding Attachment (C-78) into workholder (see illustration 1), after locating by inserting dowel pin into hole in face of Pica End Gauge.
3. Place Universal Blade Assembly (Blade and Trimmer Head) head down over stud in center of saw blade rest.
4. Bring Grinding Attachment against Saw Guard using thumb screw to adjust depth of grind. Do not grind deeper into center of saw blade than when new.
5. Bring cutting edge of tooth lightly against point of circumference of wheel nearest the tooth. Find high point of wheel by turning with hand.
6. Set Index Spring (C-38) against back of tooth while holding tooth against the wheel.
7. Draw blade away from wheel and turn on power.
8. With left hand on Gauge Frame and right hand on blade move blade into and out of the emery wheel, grinding cutting face of tooth with back of tooth held against Index Spring. Continue this operation until each tooth has been ground.

To bring tooth closer to emery wheel for heavier grind, release workholder and turn pica screw forward one-quarter point. Continue grinding until blade is sharp.

### TO GRIND TRIMMERS:

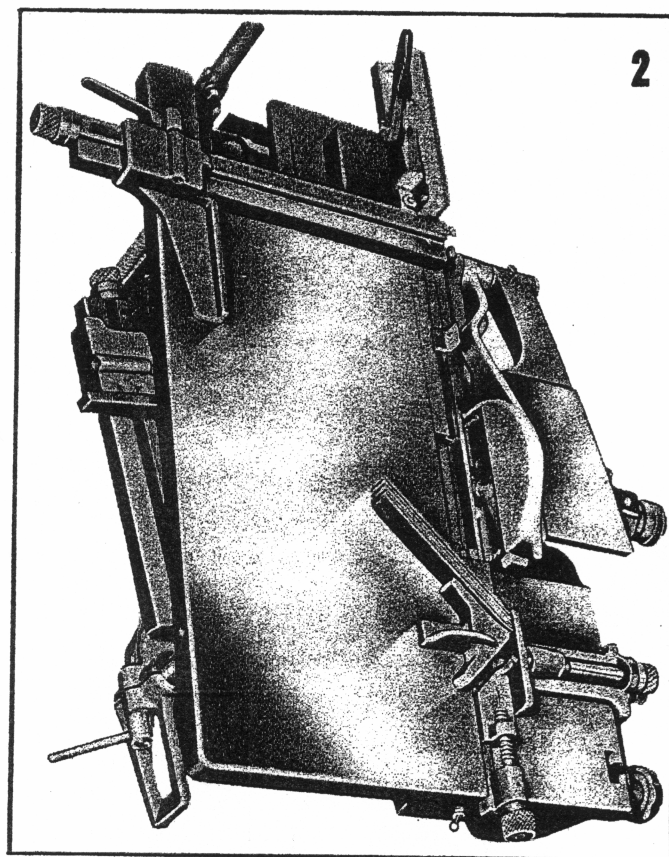
1. Use the plain emery wheel and emery wheel guard.
2. Clamp Trimmer Grinder (C-G-1) into workholder with flange under Pica End Gauge. Set Pica End Gauge at 30 picas.
3. Place trimmer knife in socket, flat side up. Hold trimmer knife in proper grinding position with thumb screw (C-G-5).
4. Bring Trimmer Grinder against Saw Guard, moving trimmer knife against emery wheel with thumb screw (C-G-6).
5. Move free part of Trimmer Grinder from side to side to grind cutting edge of trimmer knife.

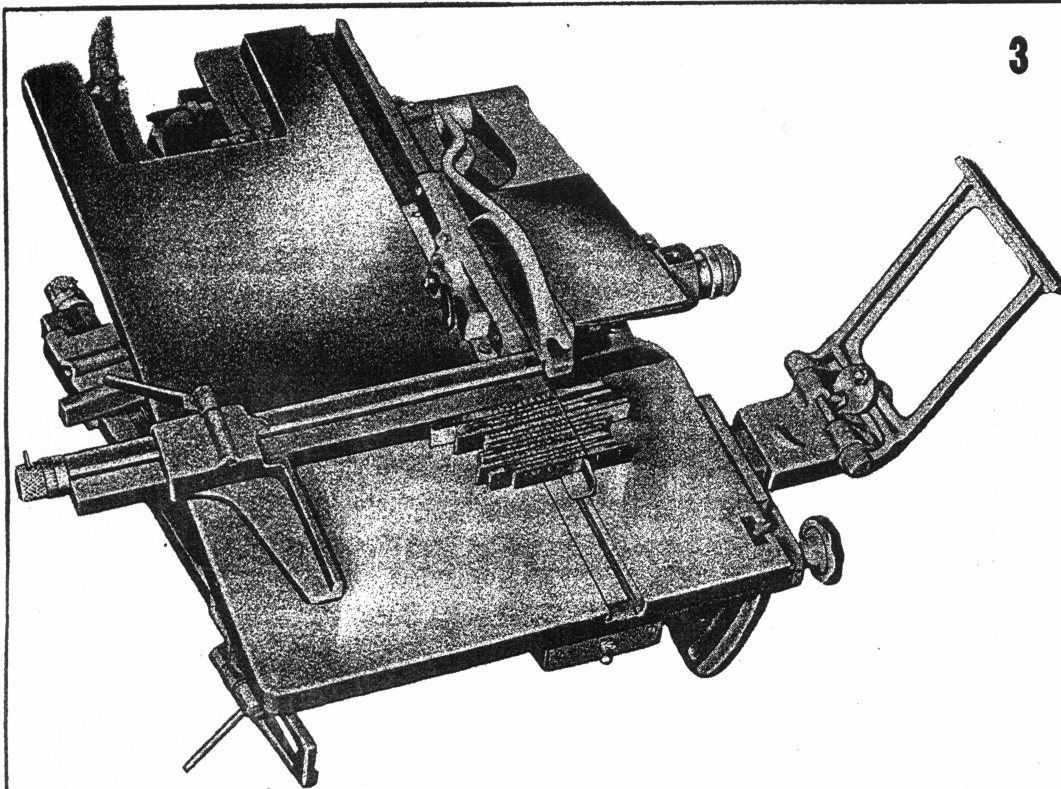
### TO MAKE MITERED BOXES:

1. Cut material to desired length, outside measure.
2. Push gauge frame assembly back to the stop pin at rear of saw table.
3. Place Right and Left Hand Miter Vise (R-L-1) in table slot.
4. Put Miter and Line-up Gauge on machine with abutment resting on table and turn to zero. Turn dial to move abutment away from zero cutting line for thickness of material being mitered; for 1 point brass rule, back away one point; for 6 point material, 6 points, and so on.
5. Insert rule in miter vise face up, pushing rule well up to abutment.
6. Lock vise and saw. Repeat on opposite side for other miter.

NOTE: Standard Miter Gauge (E-72) used in same manner as Miter and Line-up Gauge for gauging miter. (See illustration 2).

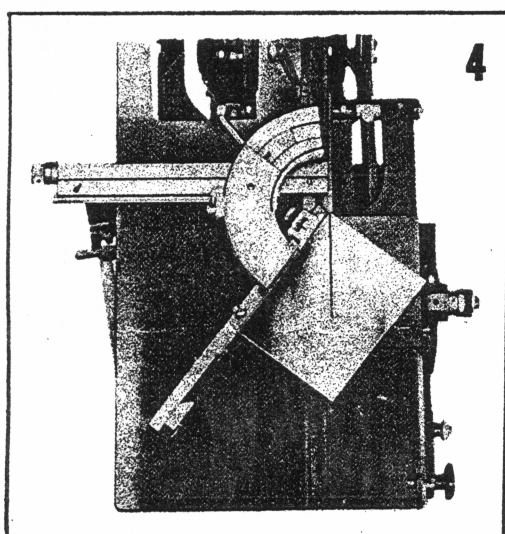
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### TO USE MITER AND LINE-UP GAUGE:

1. Use for gauging miters as outlined.
2. For flush sawing of slugs with indentation, set upper dial so screw below word "slugs" is resting on boss. Slide quadded end of slugs under Miter and



5. Angles are cut one piece at a time. Set gauge stop to control uniform cutting.
6. Base material and plates are held in sawing position, not clamped. Use gauge stop for pressure support. (See illustration 4 ).
7. When making three, four, five, six and eight-sided shapes, materials should be first cut to desired length with regular saw gauge. For multi-sided shapes refer to markings on dial.

### TO USE LOW SLUG ATTACHMENT:

1. Loosen set screw holding stem. With attachment in table slot bring face of stripper plate within two points of saw blade.
2. Position stem so that pin projecting downward will rest against front of table. Tighten set screw securely.
3. Place slugs on their side with type face toward saw blade, permitting them to gravitate until end of type line hits stripper plate. Lock with knurled screw.
4. Place attachment in table slot and saw. Stop pin will control cut to quadded part of slug only.

Line-up Gauge. Abutment rail will stop slug at end of type line (see illustration 3). Use in same position for part line sawing or removing single characters of display slugs.

3. For squaring plates, set upper dial so screw below word "plates" is resting on boss.

### TO USE ANY ANGLE GAUGE:

1. Remove Pica End Gauge (E-38) and Vise Jaw Bar (E-54).
2. Place Angle Gauge on saw with clamp under gauge straddling Gauge Frame. Bring Angle Gauge to extreme right position with stop pin against end of Gauge Frame, then tighten clamp.
3. Find angle to be cut on copy or type form with

common protractor. Swing Angle Gauge Arm to desired angle and lock in position with dial clamp.

4. Strip material up to 72 point width clamps for sawing. Place strip on work support ledge at bottom of gauge arm and flush with forward end of arm. Tighten spring clamp down onto material with thumb screw. Work support ledge is brought into position with knurled knob at center of gauge arm.

## *Important Information!*

Gauge Frame slide is made "dry fit." Do not use lubricant.

Adopt regular cleaning habits with kerosene to remove dust and grit from gauge frame, table top and table slot. Keep well for saw blade oiling device half full with No. 10 oil. Wick should touch blade lightly to draw oil through wick. Check screw will control flow.

Oil regularly, but do not over-oil. All oil holes are in plain sight.

To take up stretch in motor belt, loosen the four motor base bolts, pull motor back to proper belt tension and retighten.

To use C&G Universal Saw Blades on other saws make certain that saw blade screws up flat against trimmer head. Trimmer head of some saws has slight taper on face to suit taper of standard saw blades.

# MODEL No. 3-A PARTS

## SAW BLADES—TRIMMERS—GRINDERS

- C-53-1 Universal Saw Blade 6" (30 formed teeth—C&G patent)
- C-55-1 Universal Saw Blade Assembly 6"
- C-52 Standard Saw Blade 6" (64 swaged teeth)
- C-147 Standard Saw Blade Assembly 6"
- C-107 Stereotype Saw Blade 6" (32 swaged teeth)
- C-107-1 Stereotype Saw Blade Assembly 6"
- C-35 Trimmers (set of 3)
- C-57 Universal Saw Head with Screws and Trimmer Clamps
- C-90 Standard Saw Head with Screws and Trimmer Clamps

## C-87 UNIVERSAL SAW BLADE GRINDER WITH DISHED EMERY WHEEL

- C-82 Shoulder Screw and Washer
- C-83 Flat Spring
- C-86 Thumb Screw and Lock Nut
- C-96 Dishd Emery Wheel

## CG-1 TRIMMER GRINDER

- CG-5 Trimmer Clamp Screw
- CG-6 Trimmer Adjusting Screw
- C-34 Standard Emery Wheel  $\frac{1}{2}$ "x $\frac{1}{2}$ "x4"
- C-153 Saw Swage

## MISCELLANEOUS PARTS

- E-1-1 Stop Pin (gauge frame and saw arm)
- E-31 Sub-Table, with oiler
- E-32 Sub-Table Shaft, with screw
- E-33 Washer
- E-34 Collar, with screw
- E-35 Saw Guard
- E-36 Drive Sheave for motor
- E-37 V-belt
- E-70 Friction Collar with screw and nut
- E-70-1 Friction Collar Assembly
- E-71 Friction Collar Spring and Screw
- E-88 Table Slot Bar (for shell plate work)
- E-89 Table Plug (use in place of PE-16)
- C-108 Open End Wrench
- C-109 Screw Driver
- E-113 Adjustable Lighting Fixture
- C-129 Toggle Switch
- C-134 Cord 10 ft. long
- C-176 Spanner Wrench

## E-4 SAW BRACKET ASSEMBLY

- E-5 Saw Bracket, arm only
- E-5-1-1 Lock Bushing Assembly
- E-5-3 Felt Wicking, for saw oiler
- C-112 Oiler Cover for saw
- C-170 Lock Pin for Mandrel
- C-171 Mandrel Pulley
- C-172 Rear Retainer for Mandrel
- C-173 Front Retainer for Mandrel
- C-174 Spacer for Front Retainer
- C-175 Ball Bearing
- C-161 Felt Washer
- C-25 Cover Plate
- C-26 Mandrel
- C-29-1 Mandrel Nut and Washer
- C-31 Emery Wheel Washer
- C-33 Emery Wheel Guard
- C-34 Emery Wheel ( $\frac{1}{2}$ "x $\frac{1}{2}$ "x4" plain)
- E-20 Index Pin
- E-21 Index Spring
- E-22 Index Pin Head (knurled)
- E-23 Lock Screw
- E-24 Lock Screw Washer
- E-25 Hand Nut

## E-58 GAUGE AND WORKHOLDER ASSEMBLY

- E-58-1 Gauge Frame Assembly
- E-59 Gauge Frame
- E-59-1 Friction Plug
- E-59-2 Friction Screw
- E-59-3 Friction Spring
- E-60 Strip with screws
- E-61 Scale
- E-62 Bearing
- E-63 Bearing Clamp with screw
- E-64 Pica Screw
- E-65 Keeper with screws
- C-16 Index Dial with screws
- C-14-1 Pica Screw Knob with screws
- C-17 Index Dial Spring and Ball

## E-38 PICA GAUGE ASSEMBLY

- E-39 Pica Gauge

- E-39-1 Pica Gauge Pin
- E-40 Latch Nut
- E-41 Latch Nut Screw
- E-42 Latch Nut Screw Spring
- E-43 Latch Lever
- E-44 Latch Lever Pin

## E-45 VISE ASSEMBLY

- E-46 Vise Body, with screws and pin
- E-48 Vise Cover Plate with screws
- E-49 Vise Clamp Bar
- E-50 Vise Spring
- C-3 Vise Handle with Gits Oiler 501
- C-5 Eccentric Slide
- C-6 Eccentric Bearing

## E-54 VISE JAW BAR ASSEMBLY

- E-56 Vise Jaw Bar Dog (insert)

## E-54-1 EXTENSION VISE JAW BAR ASSEMBLY

For Clamping Plates up to 16"

## E-72 MITER GAUGE ASSEMBLY

- E-73 Miter Gauge Base
- E-74 Miter Gauge Screw
- E-75 Miter Gauge Nut
- C-14-1 Miter Gauge Knob, with screw
- C-16 Miter Gauge Index Dial, with screw
- C-17 Index Dial Spring and Ball
- E-80 Miter Gauge Lock Screw
- E-81 Miter Gauge Lock Screw Knob, with screw

## RL-1 RIGHT AND LEFT HAND MITER VISE ASSEMBLY

- RL-6 Slide Bearing with screws
- RL-7 Adjusting Screw
- RL-8 Adjusting Screw Knob, with screw
- RL-10 Miter Slide Assembly, with screws, etc
- RL-11 Miter Jaw Bar Assembly, with screws, etc  
(Can be applied to Model No. 2)

## ML-1 MITER AND LINEUP GAUGE ASSEMBLY

- ML-2 Gauge Arm
- ML-3 Gauge Strip, with screws
- ML-4 Gauge Adjuster, with screws and nut
- ML-5 Gauge Adjuster Knob with screws
- ML-6 Slide, with screws
- ML-7 Gib
- ML-8 Slide Bar, with screw
- ML-9 Shaft
- ML-10 Base
- ML-11 Keeper, with screw
- ML-12 Miter Gauge Screw
- C-17 Index Dial Spring and Ball
- C-16 Index Dial with screw
- C-14-1 Knob, with screw
- ML-19 Miter and Lineup Clamp Assembly
- ML-20 Clamp Sleeve, with screw
- ML-21 Clamp
- ML-22 Handle

## PE-1-1-135 PICA EXTENSION GAUGE ASSEMBLY

- PE-1 Pica Extension Arm Assembly
- PE-2 Arm
- PE-3 Pica Screw
- E-65 Keeper, with screw
- C-16 Index Dial with screws
- C-17 Spring and Ball
- C-14-1 Knob, with screw
- PE-10 Bearing
- E-63 Bearing Clamp, with screw
- PE-12 Scale 73 to 185 picas
- PE-13 Clamp Screw and Washer
- PE-15 Handle
- PE-16 Shaft and Screw
- PE-17 Washer
- PE-17-1 Leather Washer

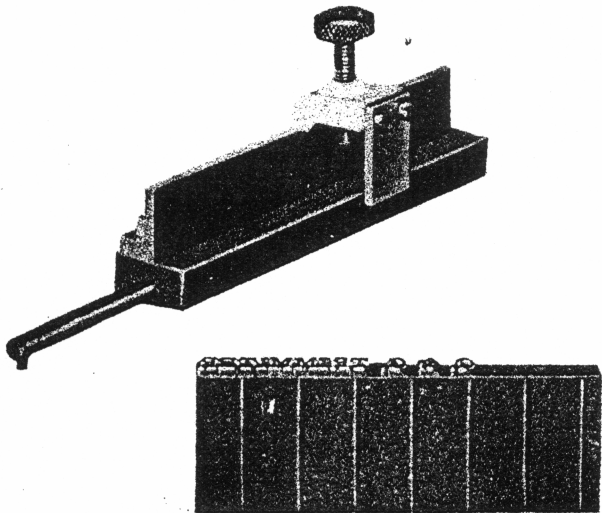
## PE-18 PICA GAUGE SLIDE ASSEMBLY

- PE-19 Pica Gauge Slide
- E-39-1 Pica Gauge Pin
- E-40 Latch Nut
- E-41 Latch Nut Screw, with screw
- E-42 Latch Nut Screw Spring
- E-43 Latch Lever
- E-44 Latch Lever Pin

## MODEL 3A ACCESSORIES

- See Thru Guard
- Any Angle Gauge
- Low Slug Unit



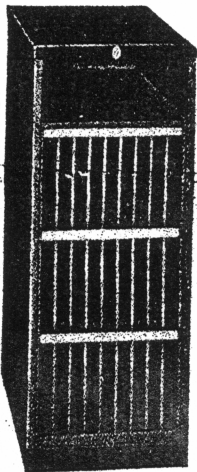


**LS-10 LOW SLUG ASSEMBLY**

*The C&G Low Slug attachment aligns and holds slugs for cutting down high shoulders on short or centered lines. The illustration above shows the attachment, and slugs before and after sawing. Attachment fits in regular vise channel. It operates simply and easily.*

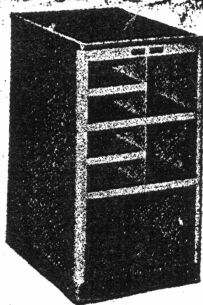
### C&G Strip Material Cabinets

Keeps a supply of strip material close to the saw trimmer and in any other convenient spot to eliminate lost motion. Built of heavy sheet steel and guaranteed to be of finest cabinet construction.

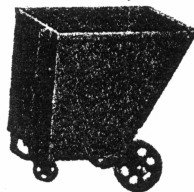


No. 22

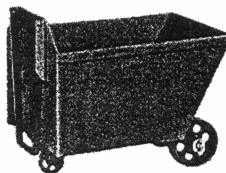
No. 22: Height 34", length 24 1/2", width 13". 27 compartments for separating rule, border, leads, slugs, high and low base, etc. Has work table and open section at top for saw trimmer attachments, base or cuts.  
No. 23: Height 27 1/2", length 20 1/2", width 15". Compartments for leads, slugs, high and low base and will accommodate double column galleys. Top serves as galley rest and lower section for base storage.



No. 23



No. 20



No. 21

### C&G Waste Receptacles

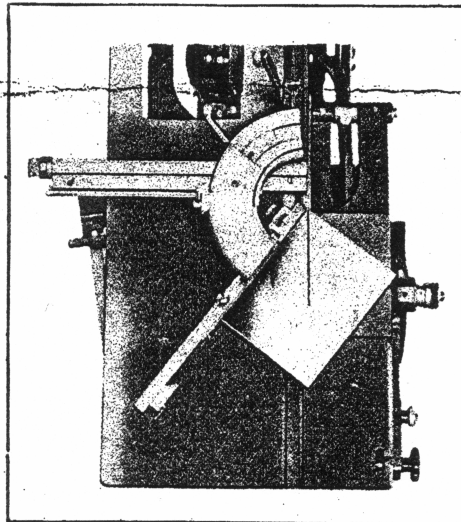
Keep your floors clean with waste receptacles --- and save metal by keeping it clean. Handy for dump, makeup and ad room.

No. 20—16" high, 16" long, 11" wide; handle swivels to height of 26". Made of heavy sheet steel; has capacity of 1567 cu. in. Shipping weight 41 lbs. With iron wheels or rubber tired wheels.

No. 20 regular equipment with No. 3-A.

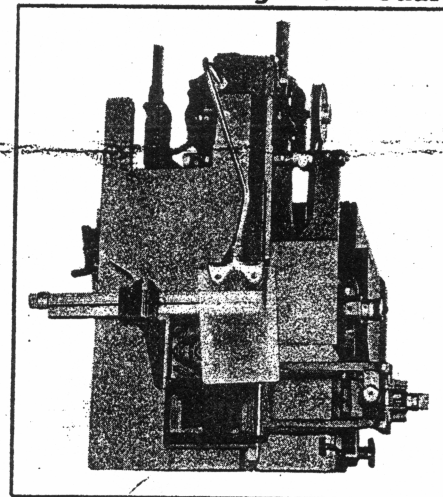
No. 21—14" high, 19" long, 13 1/2" wide; back wall from which handle projects is 16" high; handle swivels to 26". Made of same material, capacity 2000 cu. in. Shipping weight 52 lbs. With iron wheels or rubber tired wheels.

### C&G Any Angle Gauge



Angle Gauge in position for cutting. Clamping provided for strip materials to lengths as short as one pica, and of all widths to 72 points. Handles angles from 2 to 90 degrees.

### C&G See-Through Saw Guard



Easy to attach, swivels to side so regular guard can be used.

**THE MORRISON COMPANY**  
125 W. MELVINA STREET  
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