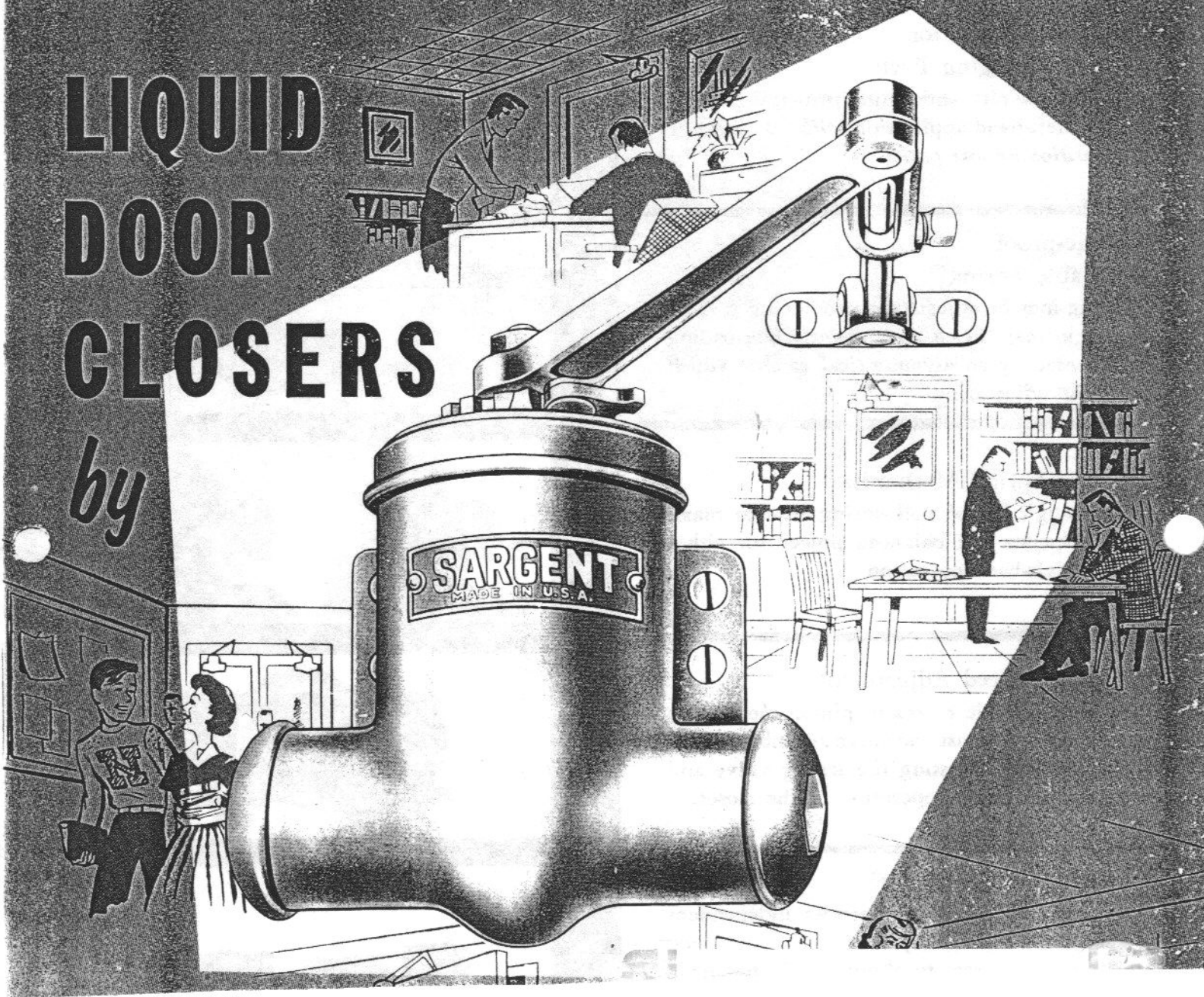


ALWAYS WORKING FOR YOU . . .

# SILENTLY!

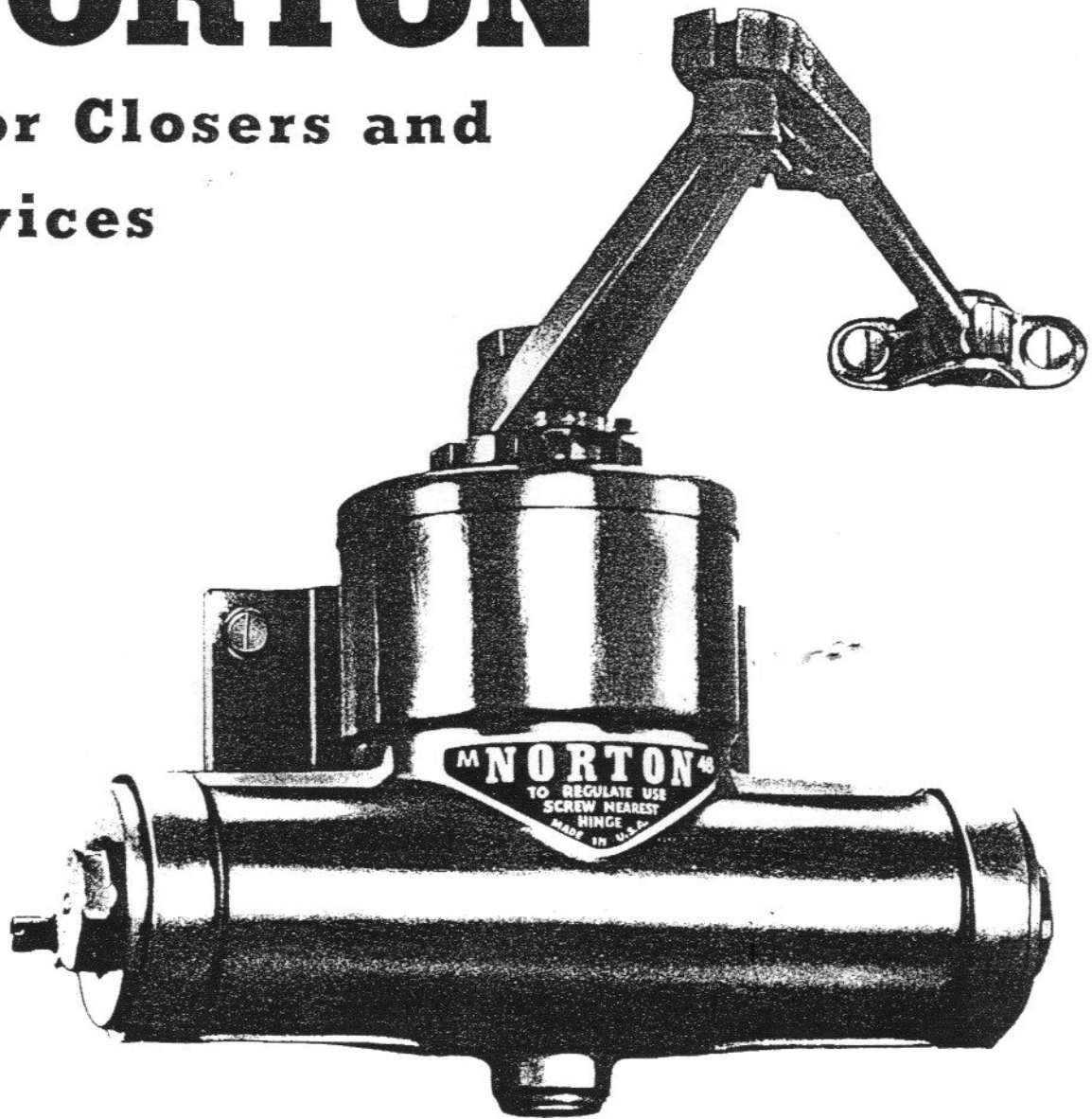
## LIQUID DOOR CLOSERS

*by*



# NORTON

Door Closers and  
Devices



FIRST NAME IN DOOR CLOSERS



70 years of leadership  
in the door closer industry

**NORTON DOOR CLOSER COMPANY**

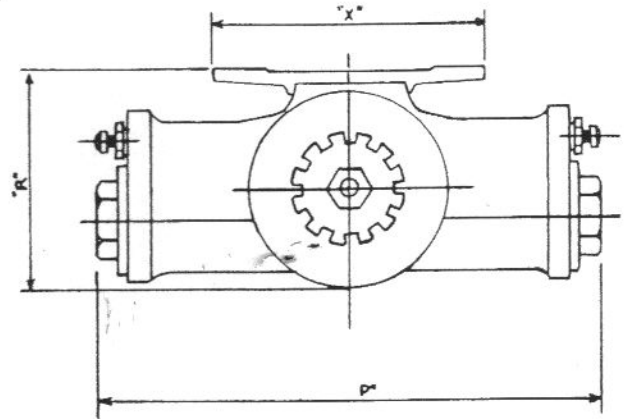
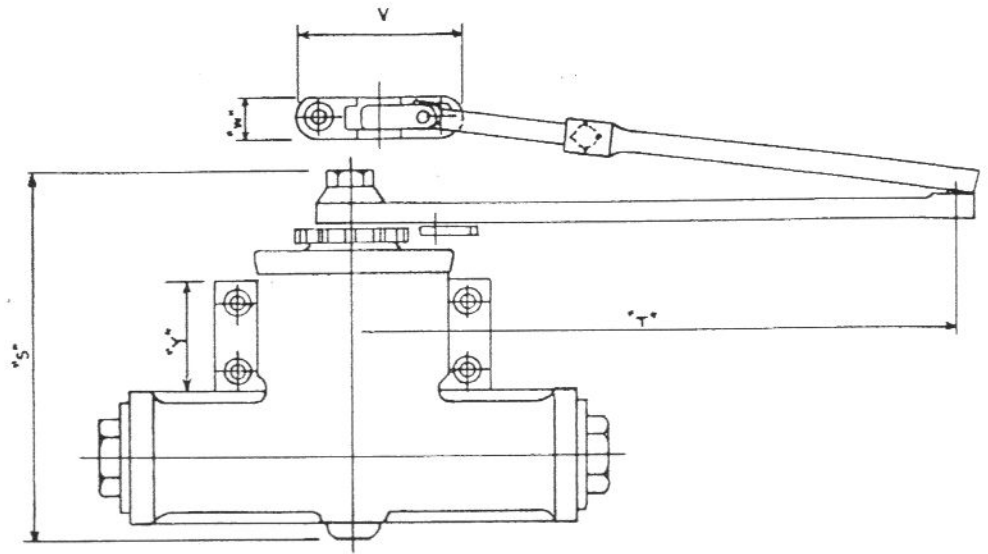
# HOW TO DETERMINE THE PROPER SIZE CLOSER FOR THE DOOR

## Norton

Security Products Division

Scovill

P.O. Box 25288, Charlotte, NC 28212 (704) 263-2101



Ample size closer is essential to properly control the door and to avoid undue strain on the closer. Norton Door Closers are made in five sizes, B, C, D, E, and F. It is important to be guided by the data given below and to the right. Check carefully when making installation, particularly on metal doors. Write for more detail and template if necessary.

### NORTON DOOR CLOSER SIZES

- Size B**—Heavy screen doors 3'x7'x1 3/8" and light interior doors 2'x7'x1 3/8"
- Size C**—Corridor or office doors 3'x7'x1 3/4" and light exterior doors 2'6"x7'x1 3/4"
- Size D**—Exterior doors 3'x7'x2 1/4" and heavy interior doors 4'x7'x2 1/4"
- Size E**—Heavy exterior doors 3'6"x7'6"x2 1/4" and heavy interior doors subject to strong drafts
- Size F**—Extra heavy entrance doors or doors of unusual height or width

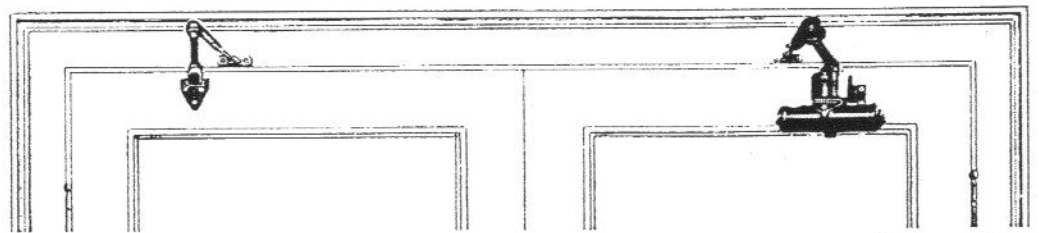
**NOTE:** Doors with heavy glass panels and doors subject to strong drafts, particularly on in-swing doors, require one size larger closers than recommended above.

### TABLE OF CLOSER DIMENSIONS

Size of Closer	P	R	S	T	V	W	X	Y
B	6 7/8	3 1/4	5 1/2	9	2 5/8	1 1/8	3 1 5/8	1 3/4
C	8 1/8	3 5/8	6 1/4	9 3/4	2 7/8	1 1/8	4 7/8	1 1 5/8
D	8 1/2	3 7/8	6 3/8	11	2 7/8	1 1/8	4 7/8	2 1/4
E & F	9 1/8	4 1/8	7 1/8	12	2 5/8	3/4	5 1/4	2 3/8

### FOR DOUBLE DOORS

Illustration at right shows holder arms with hinge side and soffit post bracket for use on the inactive half of a pair of doors. It functions at 90° and is used primarily where the assembling of crowds necessitates the door being held wide open.



Norton Closers for double door installations provide efficiency operation for emergency or for fast and easy exit.

### TELEPHONE BOOTH

The Norton Telephone Booth Door Closer is designed to hold door open 3 to 4 inches which prevents the light switch from being actuated, and also to keep door ajar for ventilation. Not reversible. Made to stand hard usage encountered in this type of service.

### COUPON BOOTH

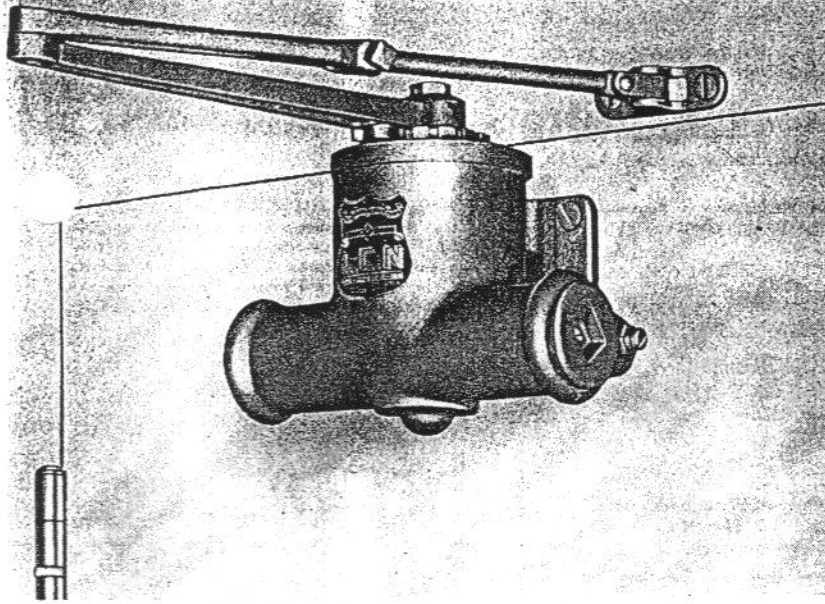
The Coupon Booth Door Closer is designed to allow the door to close after each use, and to engage the lock. Custodian can then open door, examine booth for articles left in error, and reset door ajar for next occupant. This special closer is not reversible.

### HOSPITAL

The Hospital Room Two Point door closer allows a 15° hold open for ventilation. If the door is to be left wide open at 90° this function can be obtained by pushing door back to widest opening. Recommended for its quiet operation. Not reversible.

**NOTE**—When ordering closers for telephone booths and coupon booths, or hospitals, be sure to indicate hand, as these closers are not reversible in the field.

Delayed action hold-open with automatic release are available in all sizes at extra cost.



## LCN—THE MECHANICALLY SUPERIOR EXPOSED TYPE DOOR CLOSER

(Illustration Shows Regular Arm)

The LCN Exposed Type Closer is, and always has been, unsurpassed from the standpoint of mechanical operation. It supplies constant, complete control of the door, both in opening and closing, at lowest cost. Hundreds of thousands of these closers are in daily use, many of them for years, and their excellence is shown by the long, trouble-free service they render.

LCN exposed closers embody the time-proved principles characteristic of all LCN closers—easy opening of the door, with as little resistance as possible; controlled closing speed; and quiet, firm latching action. Spring power, closing speed, and latching action are all individually adjustable to meet specific door use and draft requirements. Hold-open action is simple, positive, and adjustable.

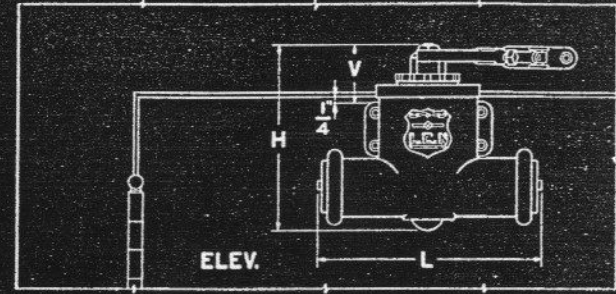
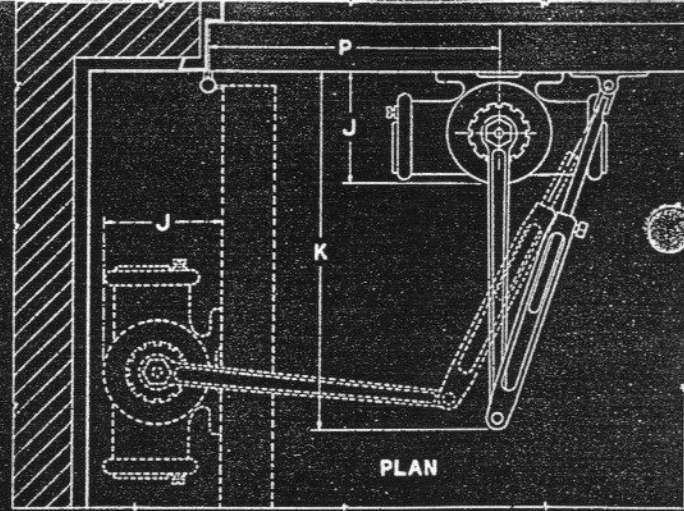
LCN war-time manufacturing experience brought about higher standards of production efficiency which have been used to improve LCN door closers. New patterns permit modern foundry practices. New jigs and fixtures result in complete interchangeability of parts, better operation and lower maintenance than found in any previous LCN closers.

### SCHEDULE OF SIZES

Applies to Standard Exposed Closers and to Special Purpose Closers on page 4

MAXIMUM SIZES OF DOORS for which Closers are Recommended			—CLOSER SIZES—			Shipping Weight of Closer, Approximate
Interior Doors	Exterior Doors		With REGULAR Arm	With 90°-140° HOLD-OPEN Arm	With 140°-180° HOLD-OPEN Arm	
	OUT Swing	IN Swing				
2'8"	Not Suitable	Not Suitable	B-Reg	B-H90	B-H180	10 lbs.*
3'0"	2'6"	2'3"	C-Reg	C-H90	C-H180	14 lbs.*
4'0"	3'0"	2'9"	D-Reg	D-H90	D-H180	16 lbs.*
4'6"	3'6"	3'3"	E-Reg	E-H90	E-H180	21 lbs.*
5'0"	4'0"	3'9"	F-Reg	F-H90	F-H180	22 lbs.*

NOTE:—The recommendations shown in table above are for doors subject to normal conditions. Where strong drafts are encountered, or where corner brackets locate the door closer more than  $\frac{3}{4}$ " nearer the hinge than the normal mounting position, next larger size closer should be applied.



### Closer Mounted on Door

The drawing above and table below show the essential overall dimensions of the various sizes of LCN exposed closers when mounted on a door.

Dotted lines in Plan view indicate space required for closer—this to guide architect and builder in locating walls to permit door to be opened a full 90°.

Position of closer with respect to top of door and trim is shown in Elevation view.

Closer Size	Dimensions					
	H	J	K	L	V	P
B	5 $\frac{3}{4}$ "	3 $\frac{3}{4}$ "	11 $\frac{3}{8}$ "	7 $\frac{1}{4}$ "	1 $\frac{5}{8}$ "	9"
C	6 $\frac{5}{16}$ "	4"	12 $\frac{1}{2}$ "	8 $\frac{3}{8}$ "	2"	10"
D	7"	4 $\frac{1}{4}$ "	13 $\frac{5}{8}$ "	8 $\frac{1}{2}$ "	2 $\frac{1}{8}$ "	11"
E	7 $\frac{1}{2}$ "	4 $\frac{5}{8}$ "	14 $\frac{5}{8}$ "	9 $\frac{1}{4}$ "	2 $\frac{3}{8}$ "	12"

## In Selecting Exposed Type Closers —

1. **WHEN** closer is to be mounted on door with either Regular or Hold-open Arm (jamb and butt conditions permitting), maximum opening obtainable is 140°, otherwise closer will strike the wall.

**WHEN** closer is to be mounted on No. 10 Soffit Bracket with either Regular or Hold-open Arm, maximum opening obtainable is 140°. (Jamb and butt conditions permitting.)

**WHEN** closer is to be mounted on No. 16 Corner Bracket with either Regular or Hold-open Arm, maximum opening obtainable is 140°. (Jamb and butt conditions permitting.)

**WHEN** closer is to be mounted on No. 11 Corner Bracket with either Regular or Hold-open Arm, maximum opening obtainable is 180°. (Jamb and butt conditions permitting.)

# INSTRUCTIONS

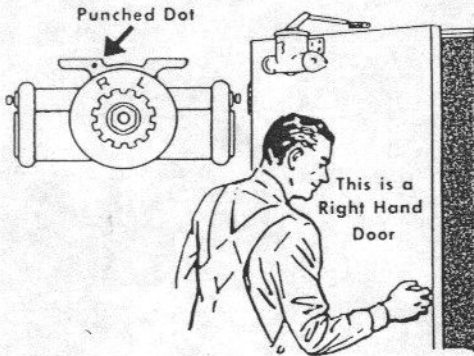


This Side of Sheet is for **RIGHT HAND** Closer on **RIGHT HAND** Door Opening Less than 140°

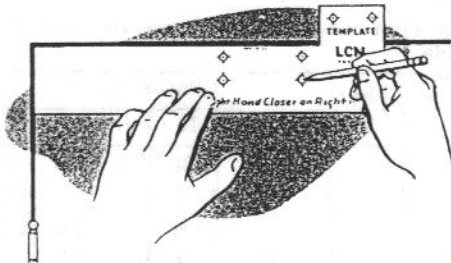
(See Other Side for Left Hand Closer on Left Hand Door)

**Important:** If closer is to be mounted on a BRACKET, discard this sheet and follow instructions in bracket carton!

**1** Hand of closer must match hand of door. Punched dot identifies hand of closer. (Hand of closer is easy to change; see "To Change Hand of Closer", column 3.)



**2** Locate screw holes. Using Template Card and MAKING SURE CARD IS FOLDED, if necessary, FOR THE CORRECT DEGREE OF OPENING REQUIRED, mark spots for screw holes on hinge face of door and jamb. Drill holes.



**3** Remove shaft nut of closer. Place main arm on shaft, push down, exposing two or three threads. If hold-open arm, hex adjusting nut must be on top. (See column 3)

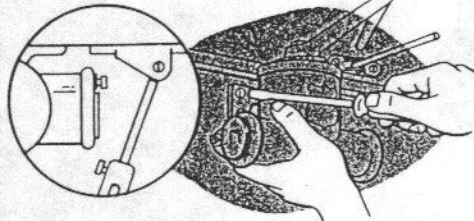


Make Sure Dog is Down

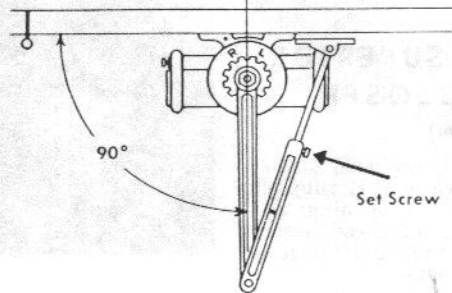
**4** Replace nut. Tighten down, seating arm on shaft.



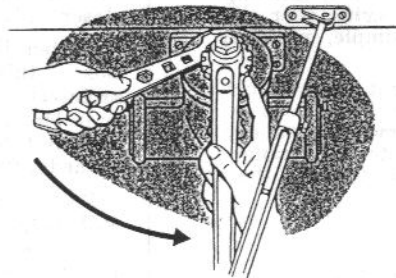
**5** Note position of shoe, shown in magnified sketch below, and mount securely on jamb. Mount closer on door.



**6** Engage rod in forearm. With main arm AT RIGHT ANGLES TO DOOR (with door closed), tighten set screw for rod.

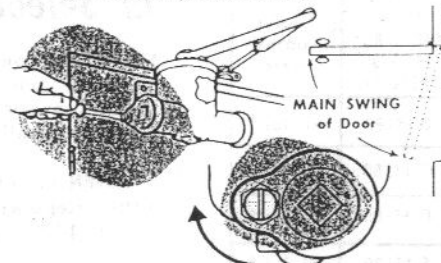


**7** Holding dog against ratchet, wind ratchet counter-clockwise about 3 notches for average closing; engage dog in ratchet.



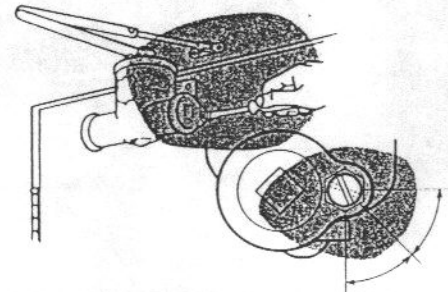
**8** Regulate closer. (It is pre-set for average conditions.)

**a** To slow down MAIN SWING of door, turn regulating screw nearest hinge IN, clockwise, by complete turns, leaving screw slot vertical (or horizontal).

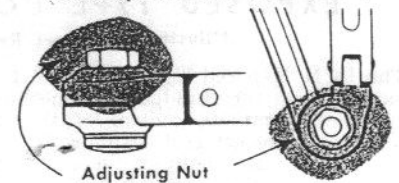


**b** Adjust LATCHING speed by turning SAME SCREW in or out SLIGHTLY, not more than 1/4 turn from vertical (or horizontal).

**c** Adjust BACK-CHECK by turning regulating screw farthest from hinge in or out SLIGHTLY, not more than 1/8 turn from vertical (or horizontal). Use lightest BACK-CHECK that will retard door opening sufficiently - do not use abrupt BACK-CHECK.



Hold-open Arm (90°-140°)



Adjusting Nut

Same arm is used with either right or left hand closer. For a right hand door, hex adjusting nut must be on top.

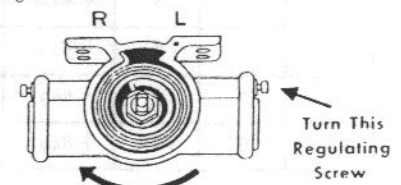
Attach arm as in steps 3 to 6.

Arm is pre-set to hold at 90°. To change, loosen adjusting nut; open door to desired hold-open position; tighten adjusting nut.



To Change Hand of Closer

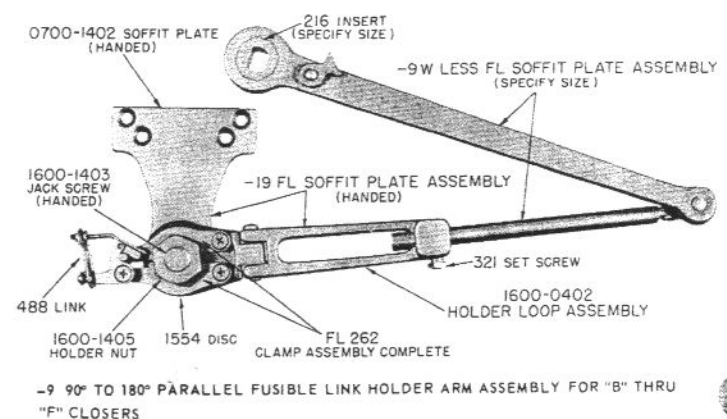
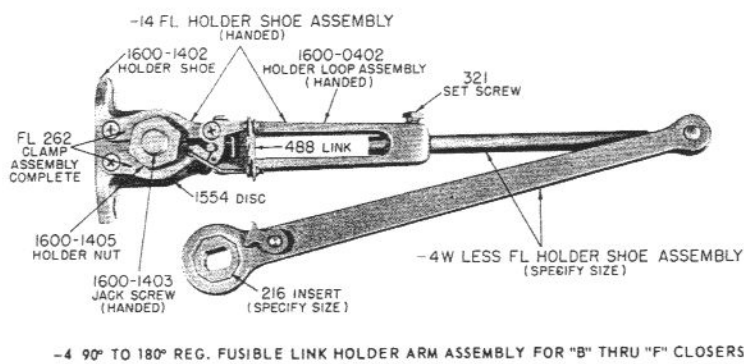
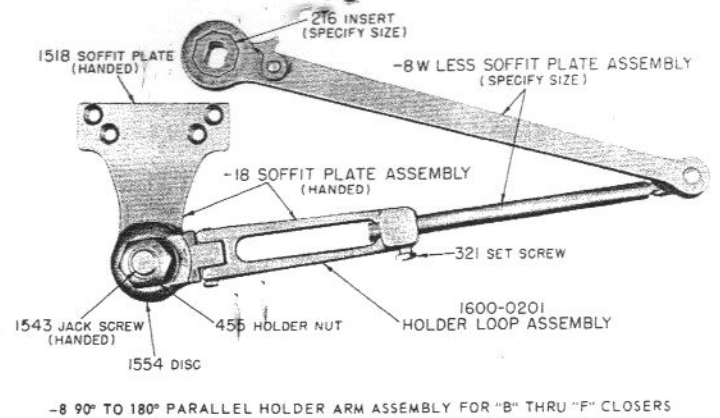
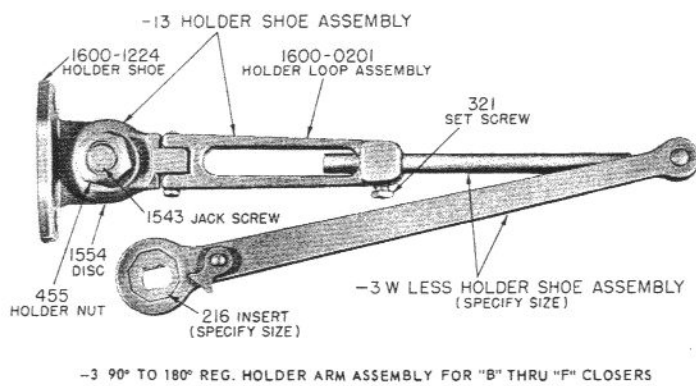
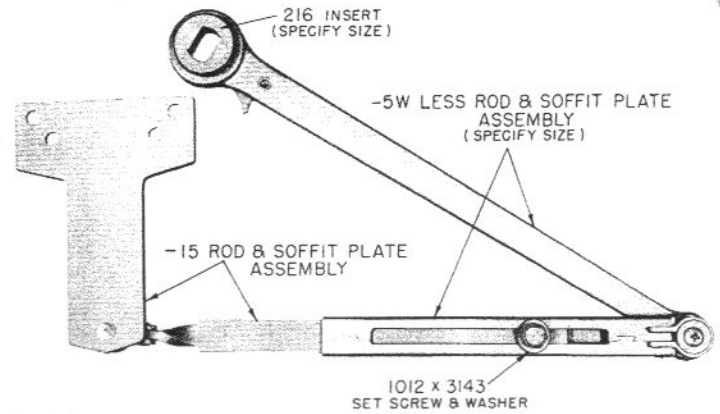
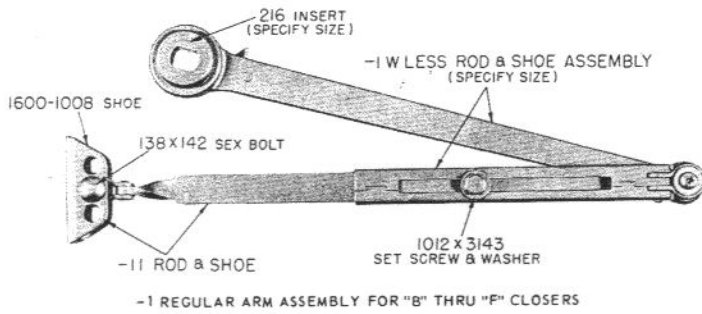
EXAMPLE: To change a left hand closer to right hand:



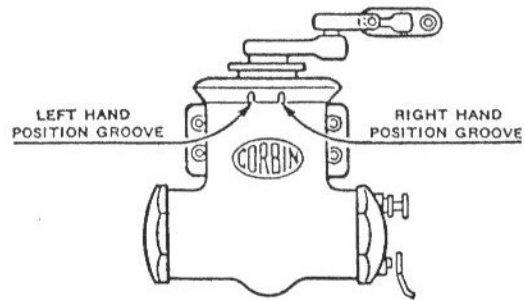
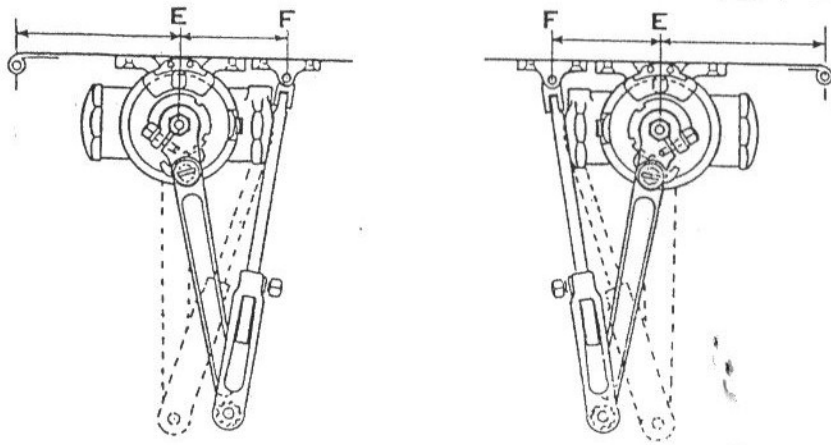
Turn This Regulating Screw

ARM ASSEMBLIES FOR REGULAR SURFACE CLOSERS (New Style)

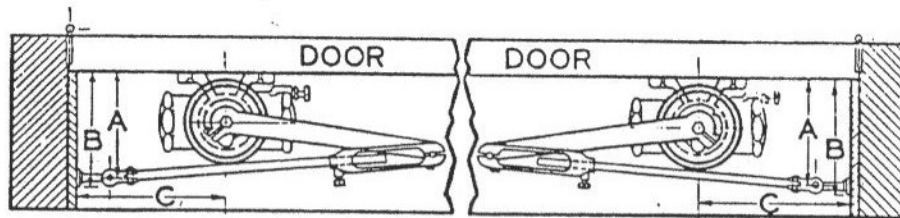
NORTON®



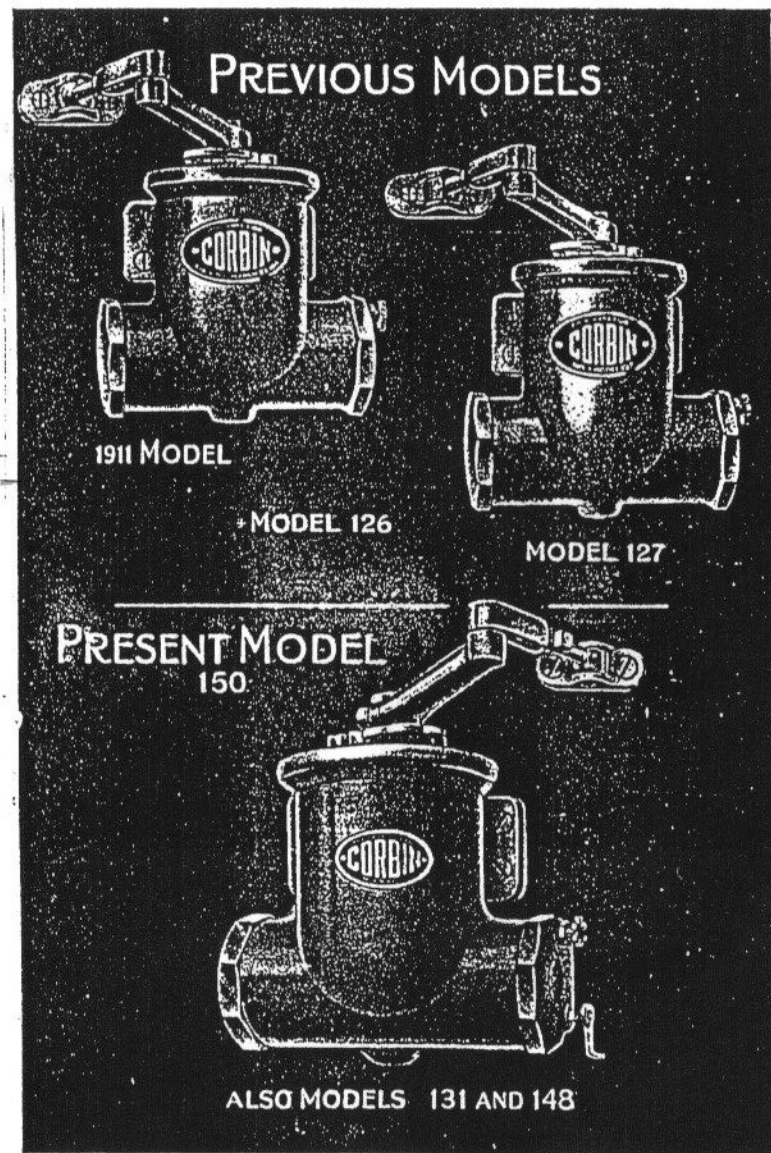
## Proper Adjustment of Arms



With closer applied with spindle (E) proper distance from edge of door and bracket (F) proper distance from spindle (E) as indicated on page 30. Adjust arms so that they will form a perfect V with door as shown by solid lines above. This is accomplished by centering main arm directly over proper position groove. Never apply arms at right angle with door as shown by dotted lines.



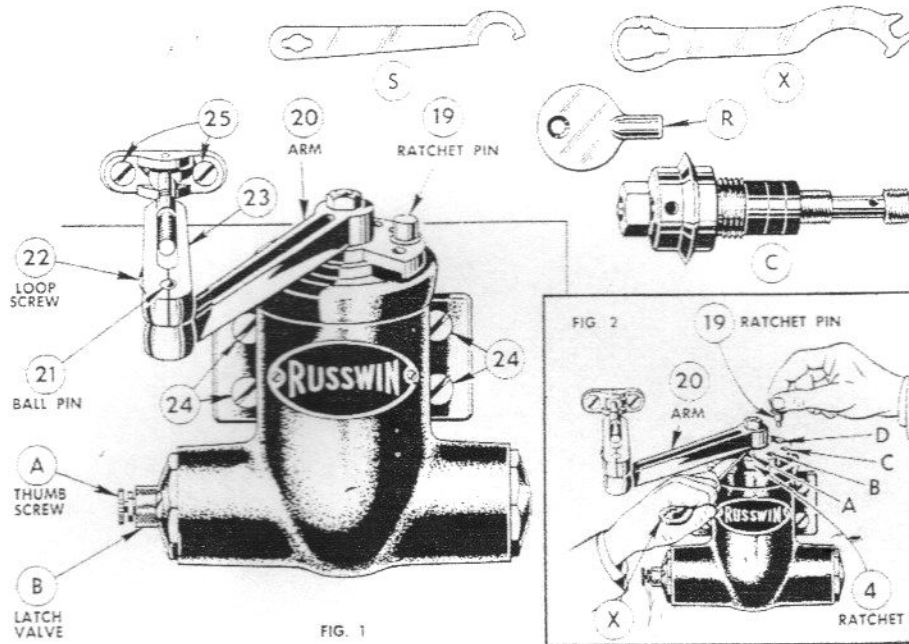
On closers with parallel arms, arms should be adjusted to form a perfect V with casing. Cover also has positioning grooves for centering main arm for this type closer to assure proper angle for efficient performance.



The above models will be readily distinguished by their name plates. The "1911" Model name plate bears three patent dates, the latest of which is March 28, 1911. Name plates of Models 127, 131, 148 and 150 bear the model number and size of closer.

\*The Model number 126 was used at the introduction of the new spring and ball type holdback arm. Its interior mechanism is the same as "1911" Model.

# DIRECTIONS FOR REGULATING



## DIRECTIONS FOR REGULATING SPEED OF DOOR

Open the door and try Closer for desired speed.

If the door is required to close more slowly, turn knurled Screw (A) Fig. 1 (at end of valve) clockwise. This is the SPEED CONTROL. If required to close faster, turn counter-clockwise.

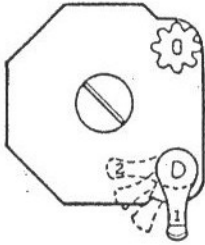
This adjustment will regulate the speed of the door to within about 3 inches of the jamb. If door does not latch properly after this adjustment has been made, the Latch Valve (B) must be regulated. This valve is used to obtain either quiet closing at the jamb or a quick release to overcome undue resistance at the latch. To obtain quiet closing, turn Knurled Nut of Latch Valve (B—Fig. 1) clockwise; for quick release to overcome latch resistance turn counter-clockwise. If speed of door has been changed by this adjustment, readjust Thumb Screw (A) according to directions in first paragraph.

Where building is furnished with Key Regulated Valve (C) instead of hand valves, key (R) and special wrench (S), are used to regulate and adjust as above. Key and special wrench may be obtained from your Russwin dealer.



## Adjusting Valves of Models 148 and 150

### For Desired Speed Control



Closers leave the factory with valves set for a reasonable speed of closing.

To adjust closing speed open lower valve by turning with key so that cut in end of valve is in vertical position (1). To open upper valve turn counter-clockwise. This will give fast closing of door but with enough checking power at latching point to prevent slamming and possible breakage of glass in door.

The lower valve controls movement of door to 10° or 3 to 5 inches from latching point.

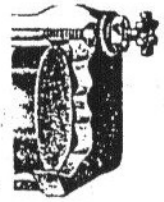
To decrease closing speed turn lower valve towards horizontal position by short steps until desired speed has been obtained. When lower valve is in horizontal position (2), it is shut off and movement of door by closer is practically stopped.

The upper valve controls the speed of door for the last 3 to 5 inches to latching point. When valve has been opened by turning counter-clockwise, quick snappy action results to overcome undue resistance at latching point. Turn valve clockwise for slow even action and quiet latching.

Note that if valves are completely closed, door will practically stand still.

## The Upper Valve

All Models

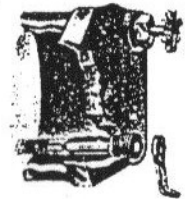


Leather packing is used to prevent leakage at this point on all models except 150. On Model 150 a special packing material not affected by oil is used. It is compressed and set tightly around the valve stem by screwing down the valve packing nut. A concave steel washer is used inside to increase the pressure upon the valve stem. Model 150 washer is flat.

In renewing the packing at this point, it is advisable to insert a complete, new regulating valve as indicated by part 127 on page 22, for all models but 150. For Model 150 use part 127A on page 26. This will avoid the possibility of damaging the new washers by stretching them over the riveted end of the valve stem.

## The Lower Valve

Models 131, 148 and 150



Leather packing is also used at the lower valve, compressed by a packing nut for Models 131 and 148. The leather used for these packing washers has been especially treated to resist absorption and a supply should be kept on hand. The number of packing washers necessary varies from four to five, depending on the thickness of the leather from which they were cut.

For Model 150 two washers of a special packing material not affected by oil are used.

## The End Caps

In the "1911" Model Closers a packing washer is used under the end cap. Always renew this washer after disassembling. Be sure all surfaces are clean. An air vent for excluding air from the liquid chamber when the end cap is being screwed into place, is provided as shown in the illustration.



"1911" Model