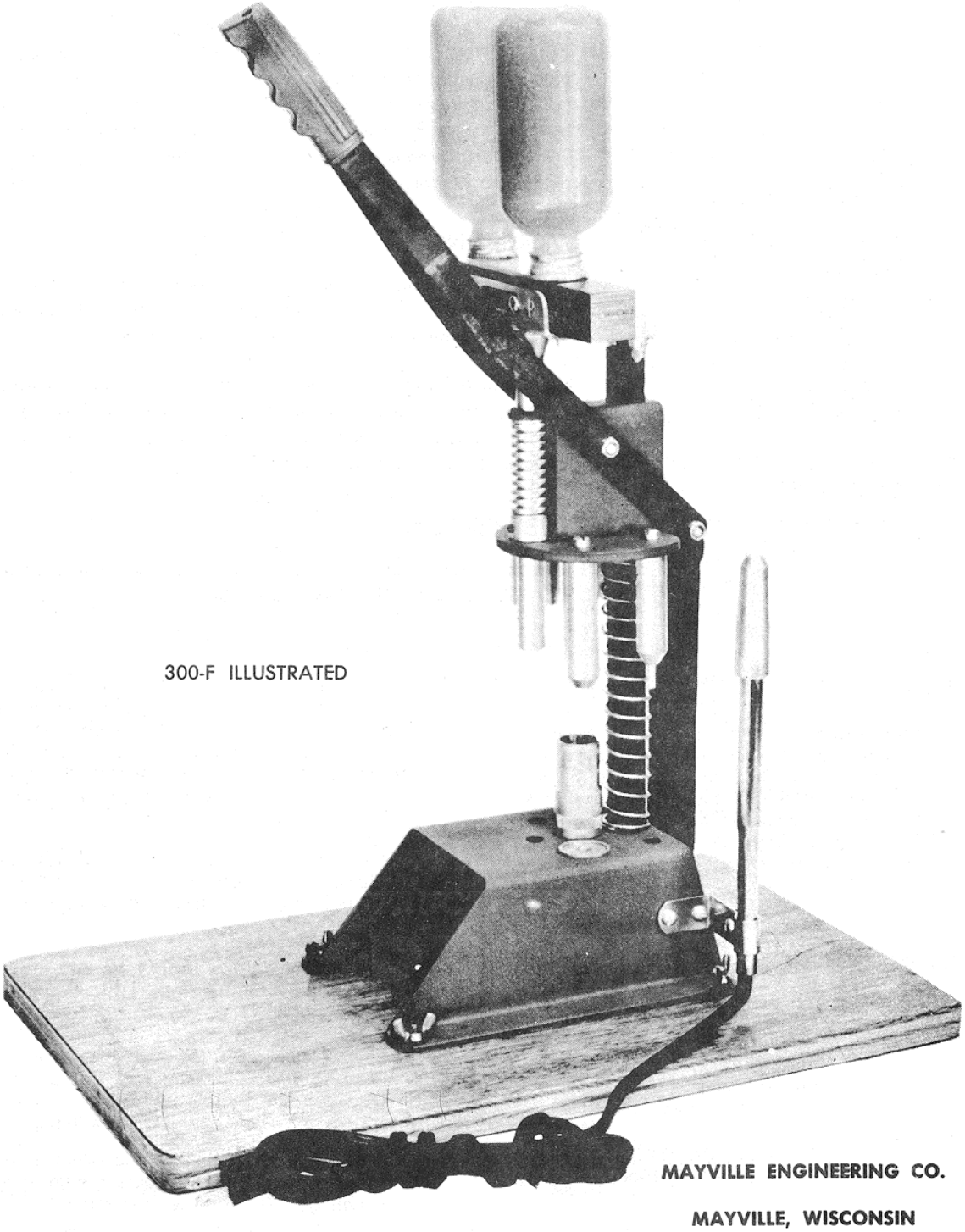
OPERATING INSTRUCTIONS and PARTS LIST

-MEC- SPEEDER 300



300-F ILLUSTRATED

MAYVILLE ENGINEERING CO.

MAYVILLE, WISCONSIN

Your Model 300 Reloading tool is completely assembled and tested at the factory and is ready to provide long trouble-free service immediately. Just follow the simple directions below.

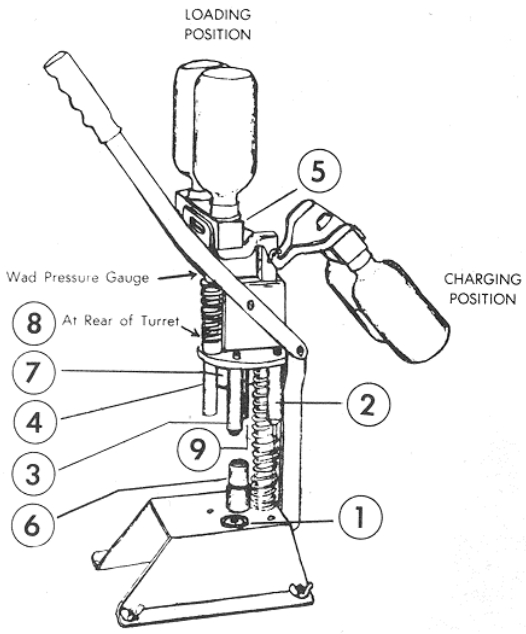


Fig. 1

UNPACKING:

Examine the contents of the shipping carton for damage or shortages. In addition to the assembled Loader the carton will contain 1 No. 324 Resizing Die, 1 No. 325 Resizing Ring, 1 No. 325 Primer Seating Assembly, 2 Caps and 4 ¼-20 Machine Screws Complete with Wing Nuts. Immediately report any shortages or damage to the delivering carrier.

MOUNTING:

If bench is available place unit in desired position and mark base mounting holes. Drill at marks using a 9/32 bit and then secure press to bench using screws and wing nuts supplied.

NOTE: A bench is not required and if one is not available you may fasten press to a wood or metal base. A piece of 3/4 plywood about 12x18 is ideal. Position the unit so that when handle is depressed it does not extend beyond the edge of the base.

LUBRICATION:

Use machine oil on main column and all friction points before use. DO NOT LUBRICATE CHARGING BAR.

CHARGING:

Release Measure Wing Nut and flip or pivot Measure to charging position (Fig. 1). Unscrew containers and fill with powder and shot. Replace containers making sure that they are mounted into the proper positions. (Position "P" for Powder and "S" for Shot.) Push the Charging Bar as far to the right as it will go and flip Measure to upright or loading position. You are ready to load.

LOADING INSTRUCTIONS: (Refer to Fig. 1)

1. Place primer in Primer Seating Assembly (1) base down.
2. Slip shell on Depriming Punch (2) and depress Handle. This removes spent primer.
3. Slip shell on Repriming Punch (3) and depress Handle until new primer is seated properly in base of shell.
4. Slip shell on Drop Tube (4) and push Charging Bar (5) to the left as far as it will go. This drops powder charge into shell.
5. Insert proper number of over powder wads (see Loading Chart) and place shell under Drop Tube. Depress the Handle until proper graduation appears on Drop Tube at upper Turret Frame Bearing. (First graduation indicates 50 lbs. wad pressure. Add 10 lbs. for each succeeding mark to 120 lbs. max.)
6. Insert proper number of Filler Wads (see Loading Chart) and seat them with Drop Tube using only enough force to bring them against the Over Powder Wads.
7. Again slip shell on Drop Tube and move Charging Bar smartly to the right. This drops shot charge into shell.
8. Push Resizing Die (6) over end of shell, then slip Resizing Die with shell into Crimp Starting Head (7). Depress Handle as far as it will go. This resizes the shell and starts the crimp.
9. Place the Resizing Die and shell into Crimping Head (8) and again depress the Handle as far as it will go. This finishes the crimp.
10. Now place the Resizing Die and shell into opening directly below Ejecting Punch (9). Depress the Handle and eject the finished shell.

WADS:

Generally speaking, any combination of wads that includes one Over Powder Wad (Nitro Card) of any thickness and one Filler Wad (Fiber, Felt, or Cork) ¼" thick and which brings the shot charge to within 9/16" of the shell opening will be satisfactory. Bear in mind, however, that the best wad column for your particular needs will be determined by your own experience. A slight change in loading technique may require a suitable change in wad column. For your convenience we are listing below in tabular form wad columns that are considered suitable for the corresponding load. Charging Bars are available for all loads shown.

CHARGING BARS FOR ALL — M E C — LOADERS

10 GAUGE

	Ga.	Bar No.	Oz. Shot	Amt. Grs.	Powder Kind	Wad Pres.	Height of Wad Column In Inches* Winches., Western New Rem. Peters	Fed., Rem., Peters
	10	1	1-¾	50	ALCAN NO. 7	90	1	1
	10	2	2	49	ALCAN NO. 7	90	1	1
	10	3	2-¼	58	ALCAN NO. 8	90	7/8	7/8

12 GAUGE

	12	1	1-⅛	21	RED DOT	75	5/8	1
	12	2	1-⅛	23	RED DOT	75	5/8	1
	12	2	1-⅛	24	DuPONT P. B.	75	5/8	1
	12	2	1-⅛	34	ALCAN NO. 5	90	5/8	1
	12	3	1-⅛	20	ALCAN 101	75	5/8	1
	12	4	1-⅛	17	BALLISTITE	25	23/32	1-3/32
	12	5	1-⅛	23	UNIQUE	75	9/16	15/16
	12	6	1-⅛	27	DuPONT P. B.	75	1/2	7/8
	12	7	1-⅛	34	DuPONT BULK	75		
	12	8	1-⅛	19	ALCAN SP.	75		
	12	9	1-¼	34	ALCAN NO. 5	90	1/2	7/8
	12	10	1-¼	25	UNIQUE	75	9/16	15/16
	12	11	1-¼	33	HERCO	75	1/2	7/8
	12	12	1-⅜	27	UNIQUE	75	9/16	15/16
	12	13	1-½	40	ALCAN NO. 7	90		9/16
	12	14	1-⅝	40	ALCAN NO. 7	90	3" Mag.	3" Mag.
	12	15	1-¾	47	ALCAN NO. 8	90	3" Mag.	3" Mag.

16 GAUGE

	16	1	⅞	16.5	ALCAN 101	75		
	16	2	1	18	RED DOT	75	11/16	5/8
	16	2	1	27	ALCAN NO. 5	90	5/8	7/8
	16	3	1	29	DuPONT BULK	75		
	16	4	1-⅛	27	ALCAN NO. 7	90	5/8	7/8
	16	5	1-¼	37	ALCAN NO. 8	90	3/8	5/8

20 GAUGE

	20	1	¾	14	ALCAN 101	75	9/16	11/16
	20	2	⅞	16	RED DOT	75	5/8	3/4
	20	2	⅞	24	ALCAN NO. 5	85	5/8	3/4
	20	3	⅞	24	DuPONT BULK	75		1/2
	20	4	1	24	ALCAN NO. 7	85	1/2	7/8
	20	5	1-⅛	33	ALCAN NO. 8	85	3/8	3/4

28 GAUGE

**	28	1	¾	23	ALCAN NO. 8	75	1/2	7/8

410 GAUGE

**	410	1	⅜	12	ALCAN NO. 8	85	7/8	7/8
	410	2	½	15	HERC. 2400	50		
	410	3	⅝	15.5	HERC. 2400	50	3" Mag.	3" Mag.
	410	4	¾	16	HERC. 2400	50	3" Mag.	3" Mag.

* NOTE: Wad Column must include at least one Nitro Card Over Powder Wad and one Filler Wad (Fiber, Felt or Cork). ** Agitate.

The charges of powder and shot may vary slightly from the weights listed in the chart for many reasons. Density and moisture content of the powder, size of shot, undue agitation and skill of the operator are the most frequent sources of trouble. All loads were developed by actual test and are based on the Loading Bar being moved from side to side smartly. Slowing the action of the bar will result in heavier loads, while speeding the action will result in slightly lighter charges. Because we have no control over the type, quality and quantity of components used in your loading operations, we cannot assume any responsibility in connection with your finished shells. ALWAYS make certain that you are using the powder for which the Charging Bar was designed. NEVER alter the Loading Bar or use powders not recommended in this chart.

WAD PRESSURE:

All MEC Loaders are regularly equipped with a 50 lbs. to 120 lb. Wad Pressure Spring No. 306 which is suitable for all American made powders and also most foreign brands. The 25 lbs. pressure required for Ballestite powder may be obtained by seating the Over Powder Wads with the Repriming Punch since the Primer Seating Spring exerts this pressure near the bottom of its stroke.

CHARGING BARS:

As stated previously, Charging Bars are available for the loads listed in the foregoing chart. Changing Bars is a simple operation requiring only a matter of seconds. To change Bars flip the Measure to Charging Position. This will cause all powder and shot to drain into the Containers No. 301. Now remove Bar Stop Screw and slide Bar out from either side. Reverse procedure to insert desired Bar.

THE RESIZING DIE

The results you get from your MEC Loader will, in a great measure, depend on the condition and care of the RESIZING DIE. This important part is made to exacting tolerances with a mirror like finish in the bore. To protect this finish from rust and corrosion the bore is cadmium plated. This leaves a relatively rough surface which must be smoothed before efficient operation can be obtained.

BREAKING IN THE RESIZING DIE:

Place a loaded shell in the Die and seat it firmly with the aid of the STARTING CRIMP DIE. Next, eject the shell with the EJECTING PUNCH. Repeat this operation as often as necessary to obtain a highly polished bore. Always remember a fine finish will result in easier and more uniform loading. The operation of the DIE will improve with use.

CARE OF THE RESIZING DIE:

High temperatures and humidity will cause the polished surface to corrode in a very short period of time. If the DIE does not work properly after a period of idleness, repeat the break-in operations. When LOADER is to be stored for any extended period, coat the bore of the DIE with a rust preventative. Never use sand paper or other abrasives in the bore of the DIE.

. . . IF YOU HAVE TROUBLE . . .

WITH OVERSIZE SHELLS:

1. You may be exerting too much pressure on the WAD COLUMN. This is the most common error and it is made by many experienced Hand Loaders as well as most beginners. It is caused by exerting the recommended wad pressure on the entire wad column. ONLY THE OVER POWDER WAD should be seated under high pressure. Use only enough force to seat all other wads. Performing this operation properly is a must if your gun has a tight chamber.
2. You may be using too many wads. If the crimp bulges when the shell is finished your wad column is too high. If the crimp tapers inward or has an opening in the center, the wad column is not high enough. Slight inward taper is preferred as this locks contents with toggle action of paper and shell will withstand considerably more abuse without spilling shot.
3. The shells you are using may be moist. Always be sure that the casings you use are dry and clean. Store finished shells in a cool dry place.
4. Check the wads you are using. Be sure they are of the correct diameter. Oversize wads will exert too much side pressure on the walls of the shell causing it to expand when ejected from the Resizing Die. The same condition results from too much pressure on good wadding
5. If your gun has an exceptionally small chamber you may find it well to resize the BRASS with the No. 335 Resizing Ring using it in accordance with the directions with which it is packed. If you find that your shells expand during storage an accessory, the No. 348 Resizing Sleeve will be helpful. A shell that ejects from the Resizing Die under great pressure will expand much more than one that ejects easily. Always inspect immediately shells that require excess or high ejecting pressures.
6. Over Powder Wads may not be seated properly. It is common practice to insert the .070 and .135 by placing them into the shell opening at a slant and allowing them to align during the seating operation. This practice is efficient but may cause trouble if Wads are pushed in too far with the fingers. In this case the edges may touch the powder before aligning horizontally thus distorting the case. DO NOT attempt to insert filler wads in the above manner. Hold them horizontally and use a twisting action when starting in the shell.

WITH RESIZING DIE STICKING:

1. Check bore of the RESIZING DIE for rust or corrosion. Always store the LOADER in a dry place and as an extra precaution oil the bore of the DIE whenever you finish using it. Be sure to remove this oil before again using.
2. Check your shells for moisture. If necessary dry them.
3. Check your shells for dirt or other foreign materials.
4. Check for over-size wads. To get good results you must use quality components.
5. Did you break in the DIE correctly? If not repeat BREAK-IN OPERATIONS.
6. Do not lubricate your shells with machine oil. This softens the paper and makes them difficult to resize. In addition, the finished shells will expand in storage.

Accessory Equipment

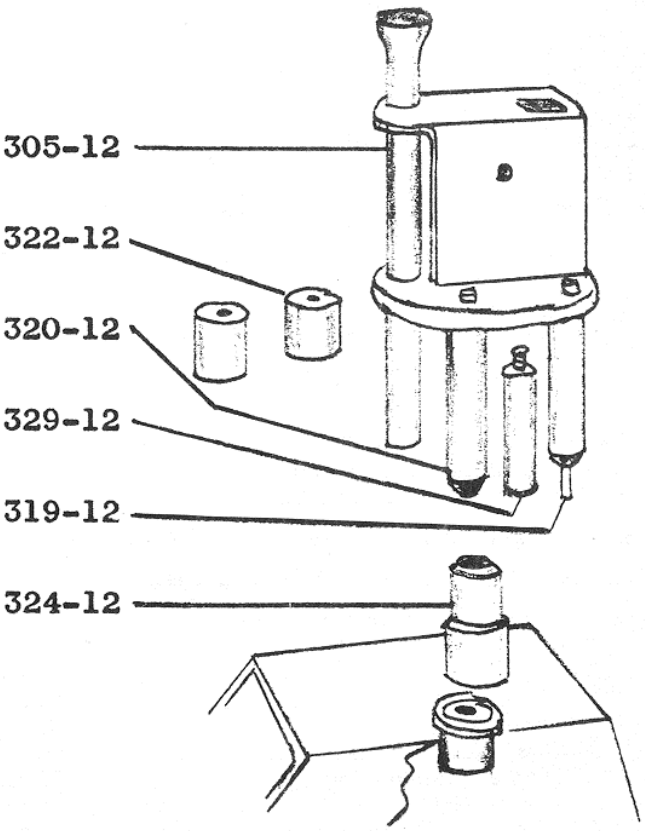
F33B SHELL FORMER

(STD. ON 300-F and 300-FC)

If you have trouble inserting Wads because your cases are deformed or soft from repeated use, the MEC Electric Shell Former will be invaluable. This device tests your cases for blow-out at the brass and reshapes and reconditions the shell for easy insertion of the Wads. Also you get additional service from shells that ordinarily would be discarded. Price _____ $4.95

3" RESIZING DIE

For the processing of 3" cases in both 12 Ga. (324-3-12) and 20 Ga. (324-3-20). Die for 2 9/16" 16 Ga. shells (324-9-16) is also available. Price _____ $3.50



BATTERY CUP PRIMER TOOLS

The 6 tools above plus No. 335 Resizing Ring make up the No. 41P-12 Die Set with which all Model 300 presses are equipped. With the exception of the No. 305-12 Drop Tube and No. 329-12 Eject Punch all tools are furnished for each gauge.

STAR CRIMP HEAD:

For the hand loader who wishes to load new cases, a Star Crimp Head No. 334 is available. It is substituted for the Crimp Starting Head No. 321 and is easily interchanged. Price _____ $3.50

RESIZING SLEEVE (348)

For resizing the finished shell a second time. Provides a generous radius at the crimp for best results in auto and pump shotguns. Price _____ $3.50

DIE SETS:

A very complete variety of Die Sets is carried in our stock to satisfy almost all of your reloading needs. For those who wish to load with battery cup type primers only we can supply the following:

341P-35-10 10 Ga. 3½ Mag. Set includes the following:

1. 322-10 CRIMPING DIE
2. 320-10 REPRIMING PUNCH
3. 319-10 DEPRIMING PUNCH
4. 324-35-10 RESIZING DIE
5. 355-10 RESIZING RING

Price _____ $12.00

341P-10 10 Ga. 2⅞" Set (Same as above but with 324-10 2⅞" Resizing Die in place of 3½") Price _____ $12.00

341P-12 (At left — Standard equipment with all 300 units.)

341P-16 16 Ga. Die Set includes the following:

1. 322-16 CRIMPING DIE
2. 320-16 REPRIMING PUNCH
3. 319-16 DEPRIMING PUNCH
4. 324-16 RESIZING DIE
5. 329-16 EJECT PUNCH (Used for both 16 & 20 Ga.)
6. 335-16 RESIZING RING

Price _____ $14.00

341P-20 DIE SET INCLUDES THE FOLLOWING:

1. 322-20 CRIMPING DIE
2. 320-20 REPRIMING PUNCH
3. 319-20 DEPRIMING PUNCH
4. 324-20 RESIZING DIE
5. 329-16 EJECT PUNCH (For both 16 & 20 Ga.)
6. 335-20 RESIZING RING
7. 305-20 DROP TUBE (Used for both 20 & 28 Ga.) Price ____ $17.00

341P-28 DIE SET INCLUDES THE FOLLOWING:

1. 322-28 CRIMPING DIE
2. 320-28 REPRIMING PUNCH
3. 319-28 DEPRIMING PUNCH
4. 324-28 RESIZING DIE
5. 329-28 EJECT PUNCH
6. 335-28 RESIZING RING
7. 305-20 DROP TUBE (For both 20 & 28 Ga.) Price ____ $17.00

341P-410 DIE SET INCLUDES THE FOLLOWING:

1. 322-410 CRIMPING DIE
2. 320-410 REPRIMING PUNCH
3. 319-410 DEPRIMING PUNCH
4. 324-410 RESIZING DIE
5. 329-410 EJECT PUNCH
6. 335-410 RESIZING RING
7. 305-410 DROP TUBE
8. 334 STAR CRIMP DIE
9. 349 ADAPTER BRACKET
10. 350-410 WAD RESIZER

Price _____ $24.50

NOTE: Charging Bars are not furnished with set. Make your selection from loading chart. CAP TYPE DIE SETS are available in 12, 16, 20 and 28 gauges.

— M E C — SPEEDER 300 PARTS PRICE LIST

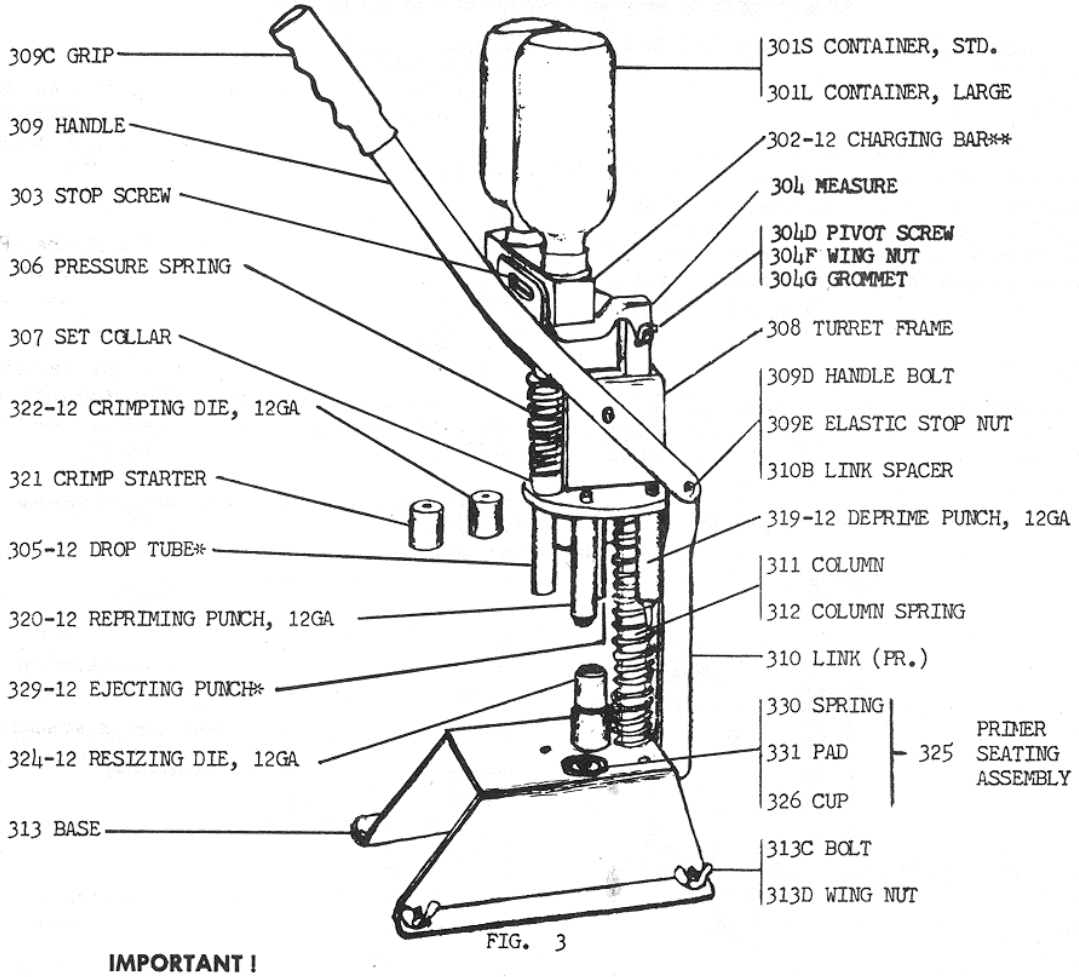


FIG. 3

IMPORTANT !

The M E C SPEEDER 300 is standard with 12 Ga. tooling and 12 Ga. No. 2 Charging Bar. All parts that are interchangable for the various gauges are identified with a —12 suffix which denotes the gauge of the tool with exceptions as noted below:

*305-12 DROP TUBE accommodates 10, 12 & 16 gauges. 305-20 is used with 20 & 28 gauges.

*329-12 EJECTING PUNCH handles 10 & 12 gauges. 329-16 handles 16 & 20 gauges.

** ALL CHARGING BARS listed are available. Make your selection from the chart.

301-S — Small Container with Caps ..... .60 ea.
301-L — Large Container with Caps ..... .90 ea.
302-12-1-etc. — Charging Bar ..... 3.50 ea.
303 — Bar Stop Screw ..... .25 ea.
304 — Shot & Powder Measure Assembly ..... 5.00 ea.
304D — Measure Pivot Screw ..... .25 ea.
304E — Measure Set Screw ..... .25 ea.
304F — Measure Wing Nut ..... .25 ea.
304G — Grommet ..... .10 ea.
305 — Drop Tube ..... 3.00 ea.
306 — Pressure Spring ..... 1.00 ea.
307 — Set Collar ..... .75 ea.
308 — Turret Frame Assembly ..... 9.00 ea.
309 — Handle ..... 3.00 ea.
309C — Grip ..... .75 ea.
309D — Handle Bolt (2) ..... .50 ea.
309E — Stop Nut (3) ¼-20 ..... .25 ea.
310 — Link (2) ..... pr. 2.00
310B — Link Spacer ..... .50 ea.
311 — Column ..... 3.50 ea.
312 — Column Spring ..... 1.00 ea.
313 — Base ..... 5.00 ea.
313C — Base Mounting Bolt ..... .25 ea.
313D — Wing Nut ..... .25 ea.
319-12, 16 etc. — Deprime Punch ..... 3.00 ea.
320-12 etc. — Reprime Punch ..... 3.00 ea.
321 — Crimp Starting Die ..... 3.00 ea.
322-12 etc. — Crimping Die ..... 3.00 ea.
324-12 etc. — Resizing Die ..... 3.50 ea.
324-3-12 etc. — Resizing Die ..... 3.50 ea.
325 — Primer Seating Assembly ..... 3.50 ea.
326 — Primer Cup Only ..... 2.00 ea.
329-12 etc. — Ejecting Punch ..... 3.00 ea.
330 — Spring, Primer Seating Assembly ..... .75 ea.
331 — Spring Pad Primer Seating Assembly ..... 1.00 ea.
335 — Resizing Ring ..... 1.00 ea.