

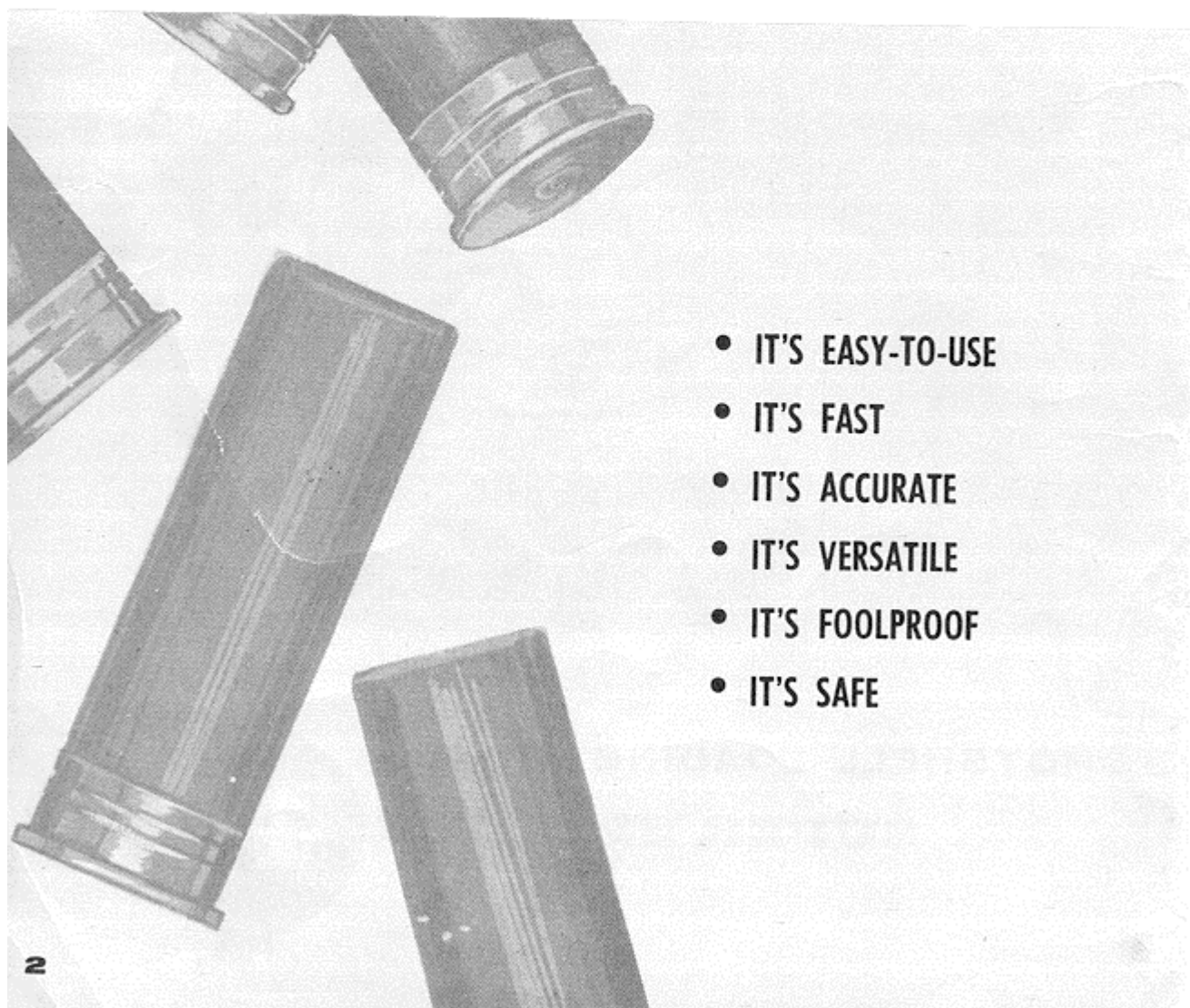
SHOTSHELL LOADING with the
MEC SUPER SPEEDER

400



Here is reloading at it's finest...

this **MEC SUPER SPEEDER**
will give you perfect reloads...every time



- IT'S EASY-TO-USE
- IT'S FAST
- IT'S ACCURATE
- IT'S VERSATILE
- IT'S FOOLPROOF
- IT'S SAFE

400

The logo for MEC, consisting of the lowercase letters 'mec' in a white, sans-serif font, centered within a solid black oval.

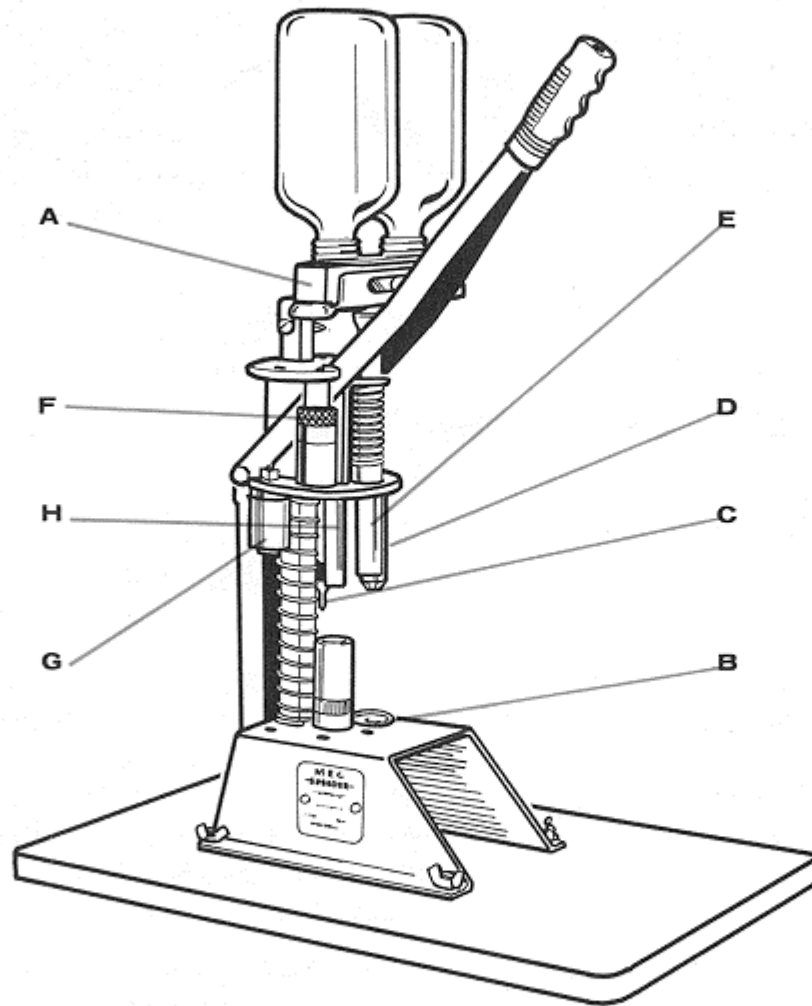
LET'S START LOADING

Your Model 400 reloading tool is completely assembled and tested at the factory, and is ready to provide long, trouble-free service. Just follow these simple instructions.

UNPACKING: Examine the contents of the shipping carton for damages or shortages. In addition to the assembled loader, the carton will contain one No. 448 Crimping Die, one No. 325 Primer Seating Assembly, an extension ring for 3" shells, two caps (for the containers), and four 1/4"-20 machine screws and wing nuts. Immediately report any shortages or damages to your dealer or delivering carrier.

MOUNTING: Place unit in desired position on bench 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 that bench is desirable, but not required. Press can be fastened to a wood or metal base, and base can then be clamped to suitable table. Insert No. 325 Primer Seating Assembly into position on press.

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



RELOADING IS SIMPLE

Before you actually try loading though, it might be well to look the tool over, comparing it with the photographs at the left which identify all the parts and dies which you will be using.

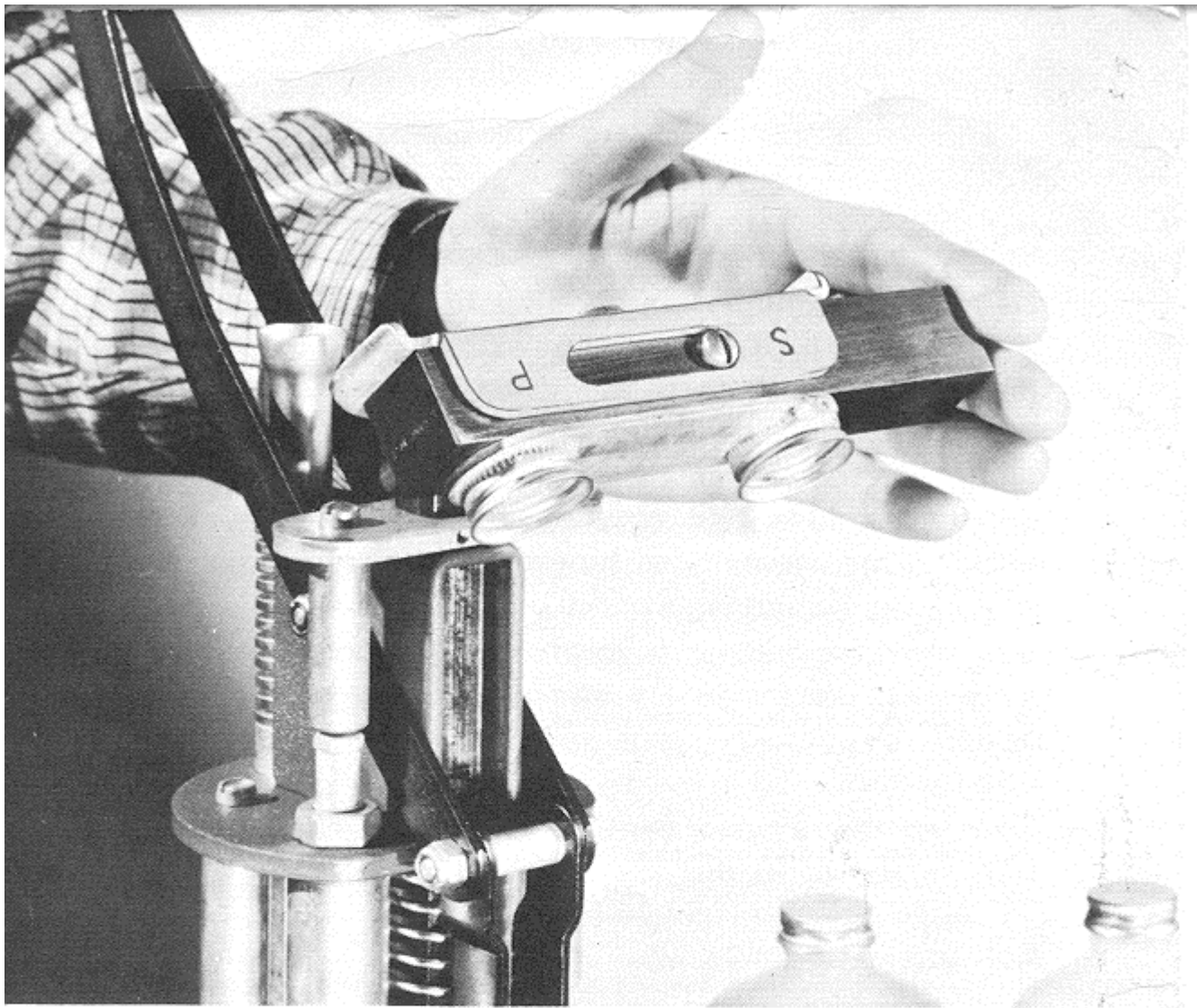
Note that the charging and measuring assembly slips, or pivots, down for easy charging or changing of loads. This assembly is hinged by a wing nut which should be tightened during actual loading.

The charging bar (a) is located at the bottom of the measuring assembly. By moving this bar to the right or left, powder and shot are measured and dropped into the shell.

The No. 425 Primer Seating Assembly fits into position as shown in (b).

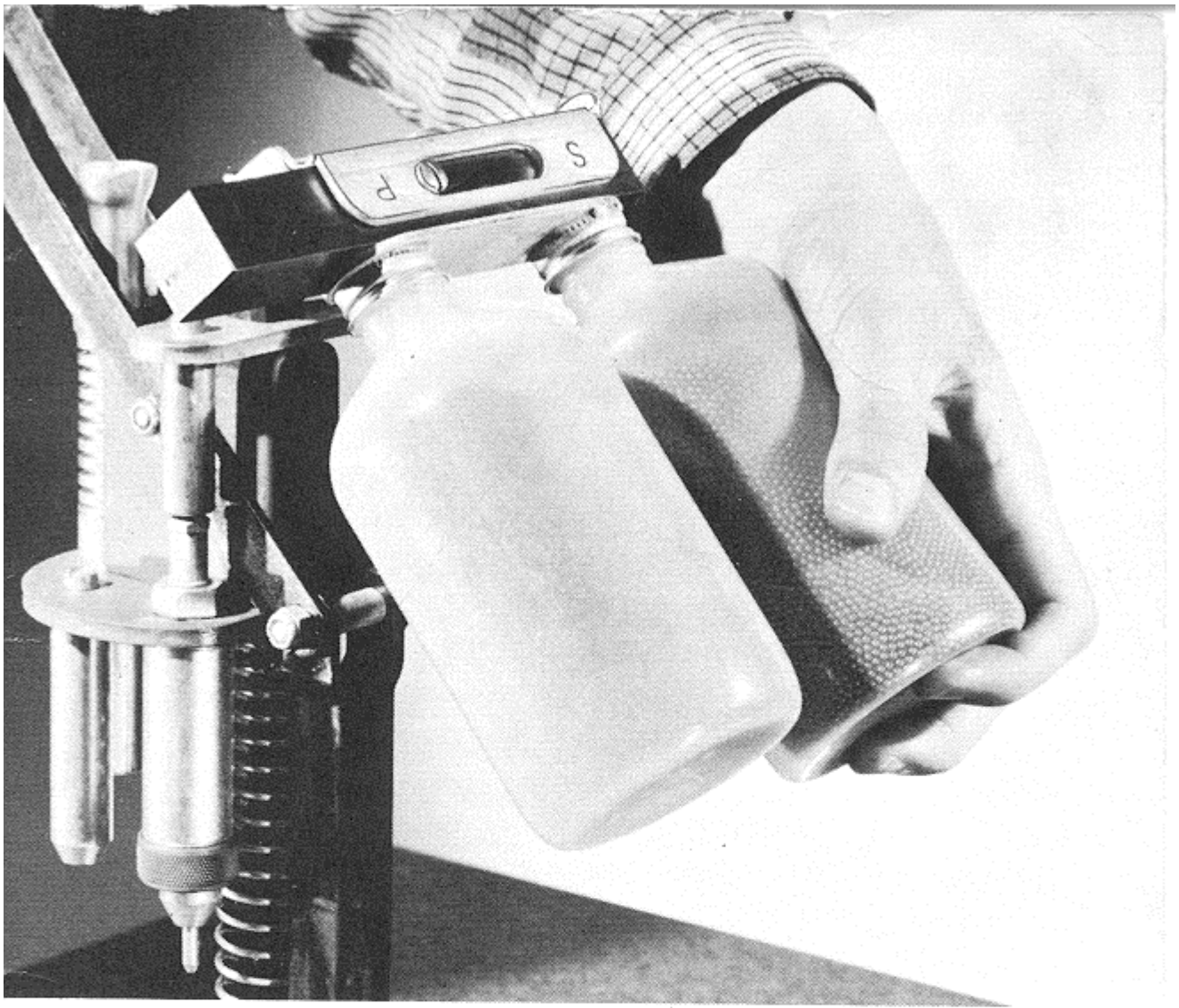
Then, going from right to left, the dies and their function are as follows.

- c) combination Resizing and Depriming Die
- d) Repriming Punch
- e) Drop Tube, thru which powder and shot is dropped into the shell. This tube is also used to seat over-powder wads.
- f) Filler Wad Feed, with Wad Ram. With wad dropped in top, and shell inserted in the bottom, Wad Ram seats wad automatically.
- g) Crimping Die (with Crimping Sleeve) performs complete crimping operation.
- h) Eject Punch (located directly behind Drop Tube).

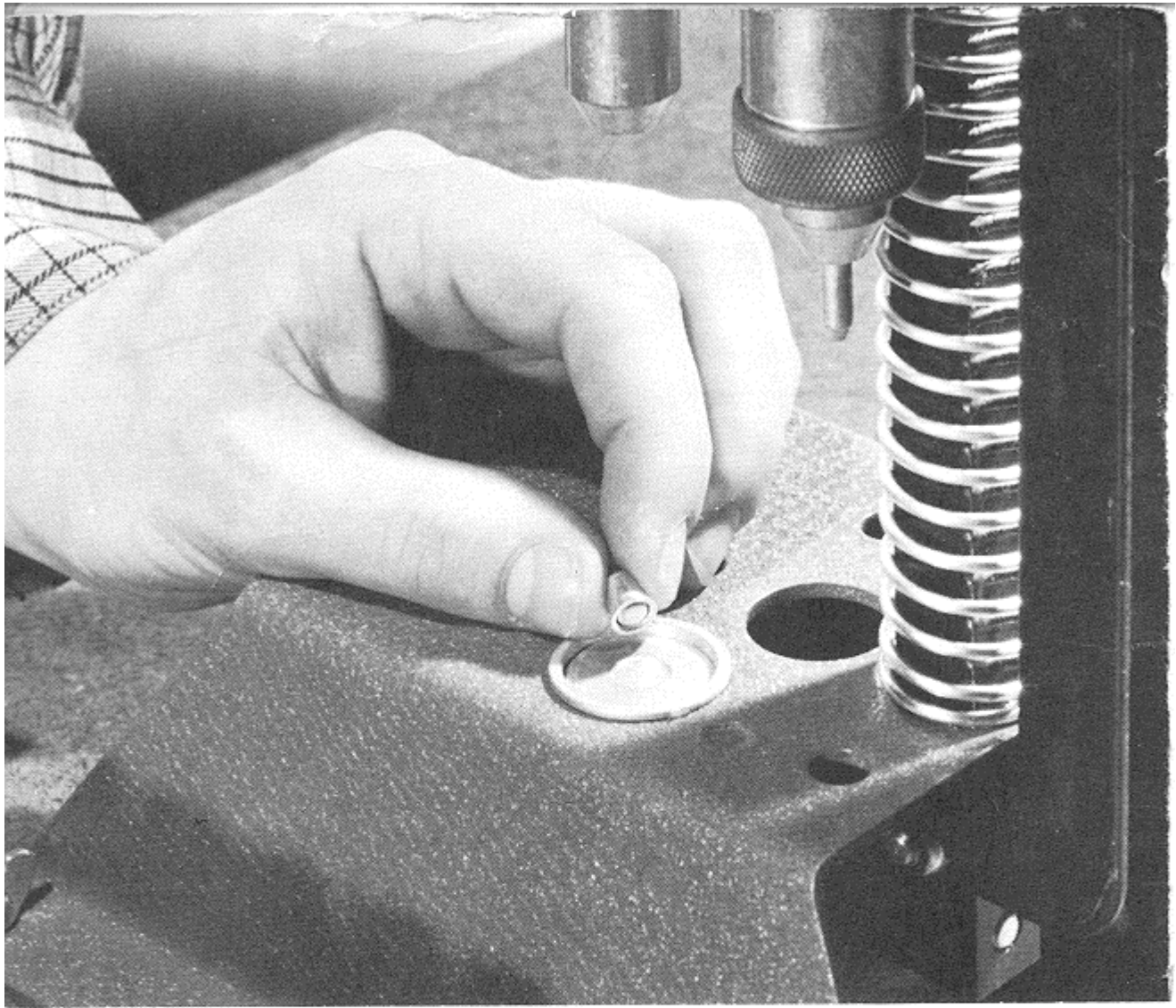


CHARGING

Release charging assembly wing nut and flip or pivot containers down to charging position. Push the charging bar to the right as far as it will go (Photo, left). Unscrew containers and fill with powder and shot. Replace containers, powder container first, making sure it is mounted into the proper position (position "P" for powder, and "S" for shot). Next replace the



shot container. Because of the weight factor, support the shot container with your hand while in the charging position so that there is no danger of its tearing loose under pressure (Photo, right). While still supporting the shot container with your hand, flip the assembly to the upright or loading position. Now you're ready to load.



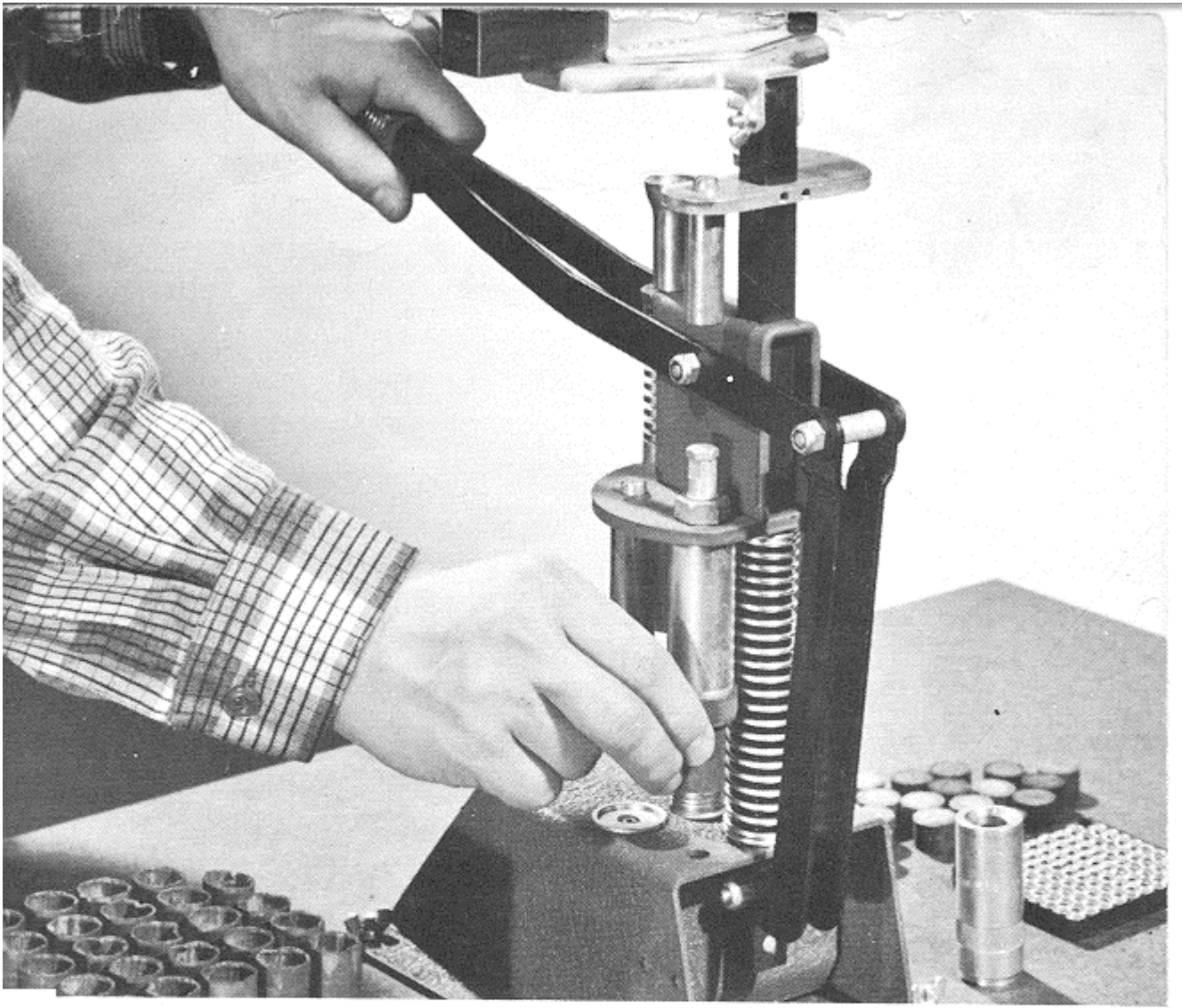
DEPRIME & RESIZE

Place primer in Primer Seating Assembly base down (Photo, left). Start shell into Resizing ring and de-

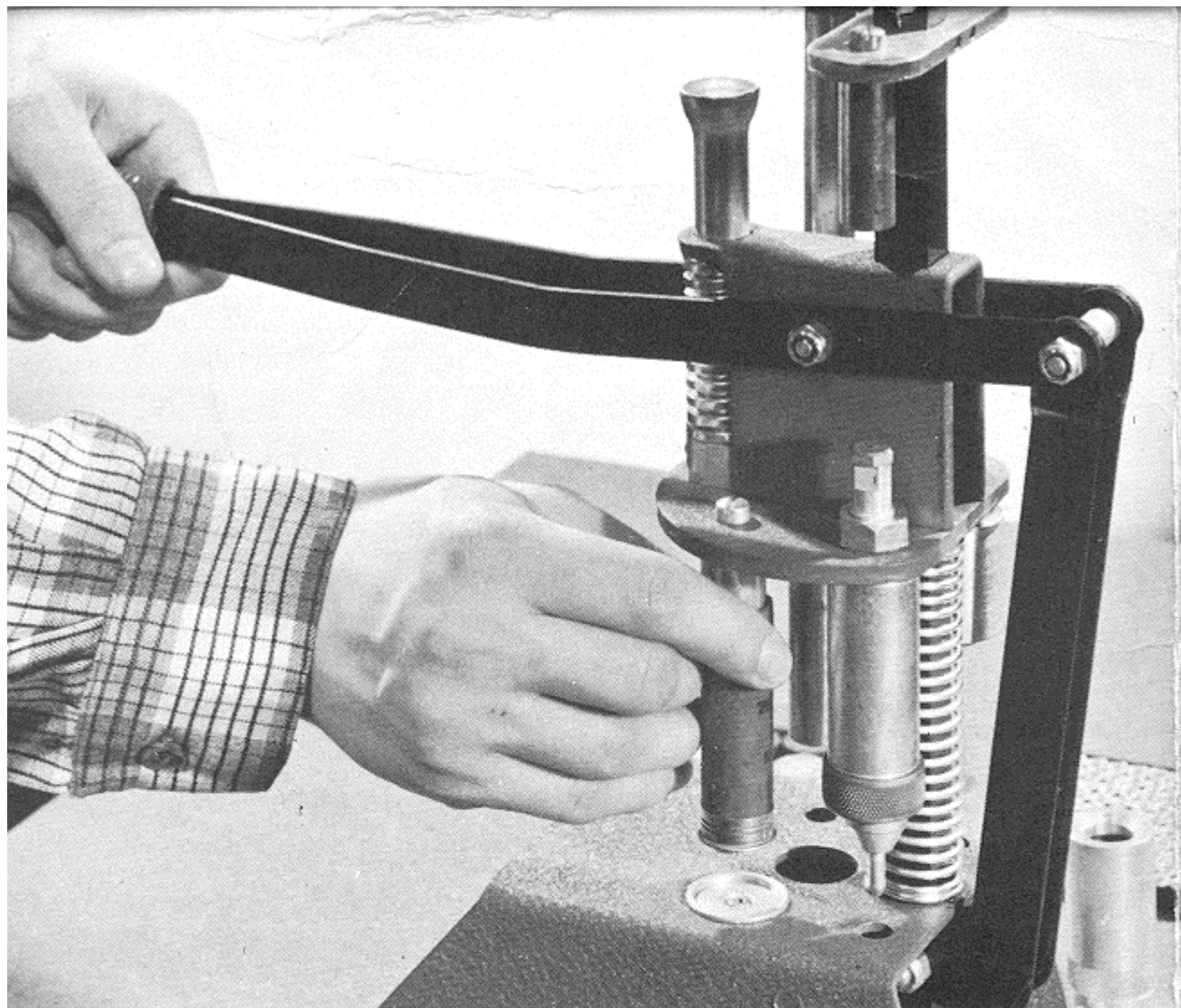
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mec

MAYVILLE ENGINEERING COMPANY, INC.

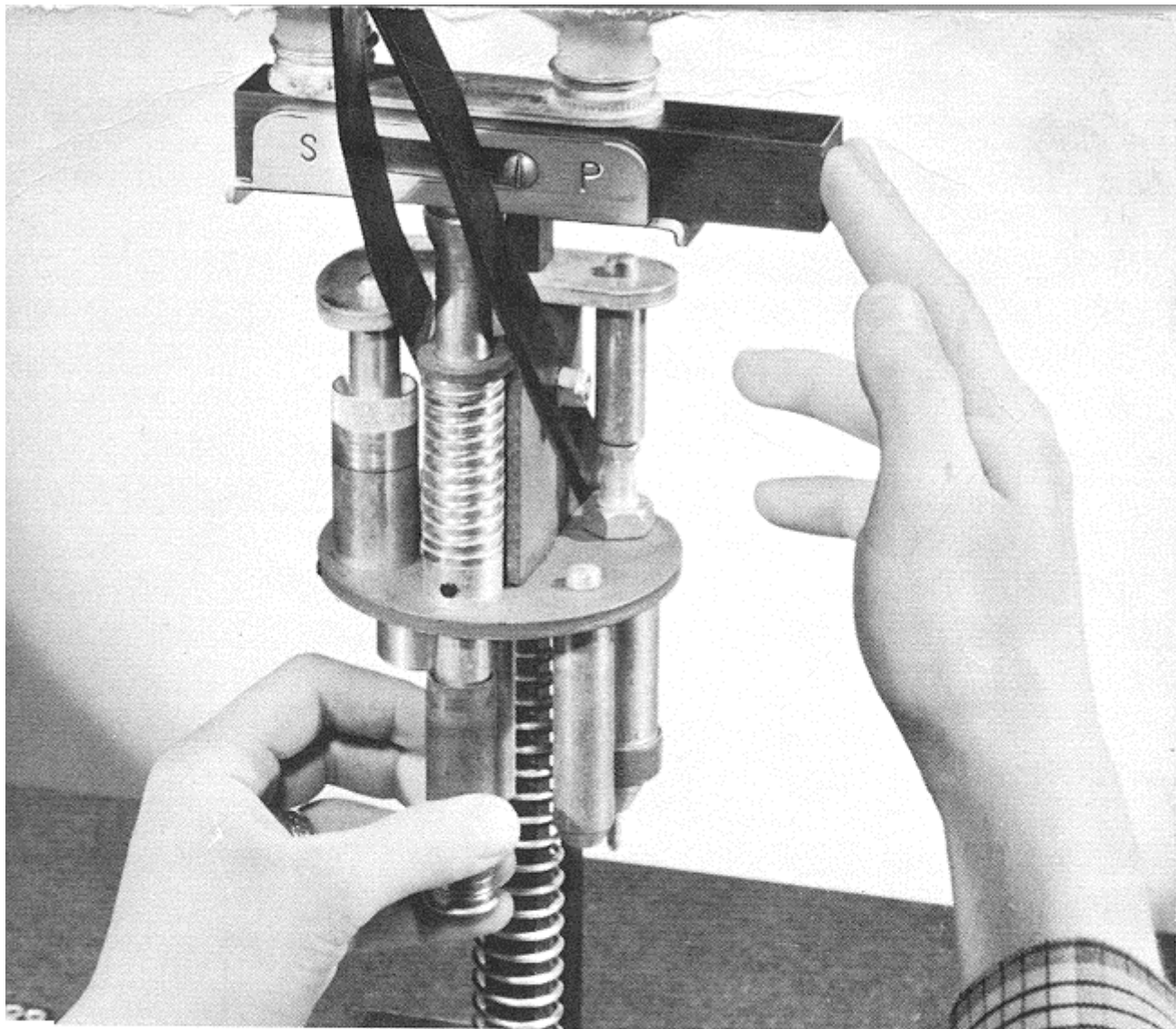


press handle (Photo, right). This removes spent primer and resizes the entire shell including base.



REPRIMING

Slip shell on Repriming Punch and depress handle until new primer is seated properly in base of shell.



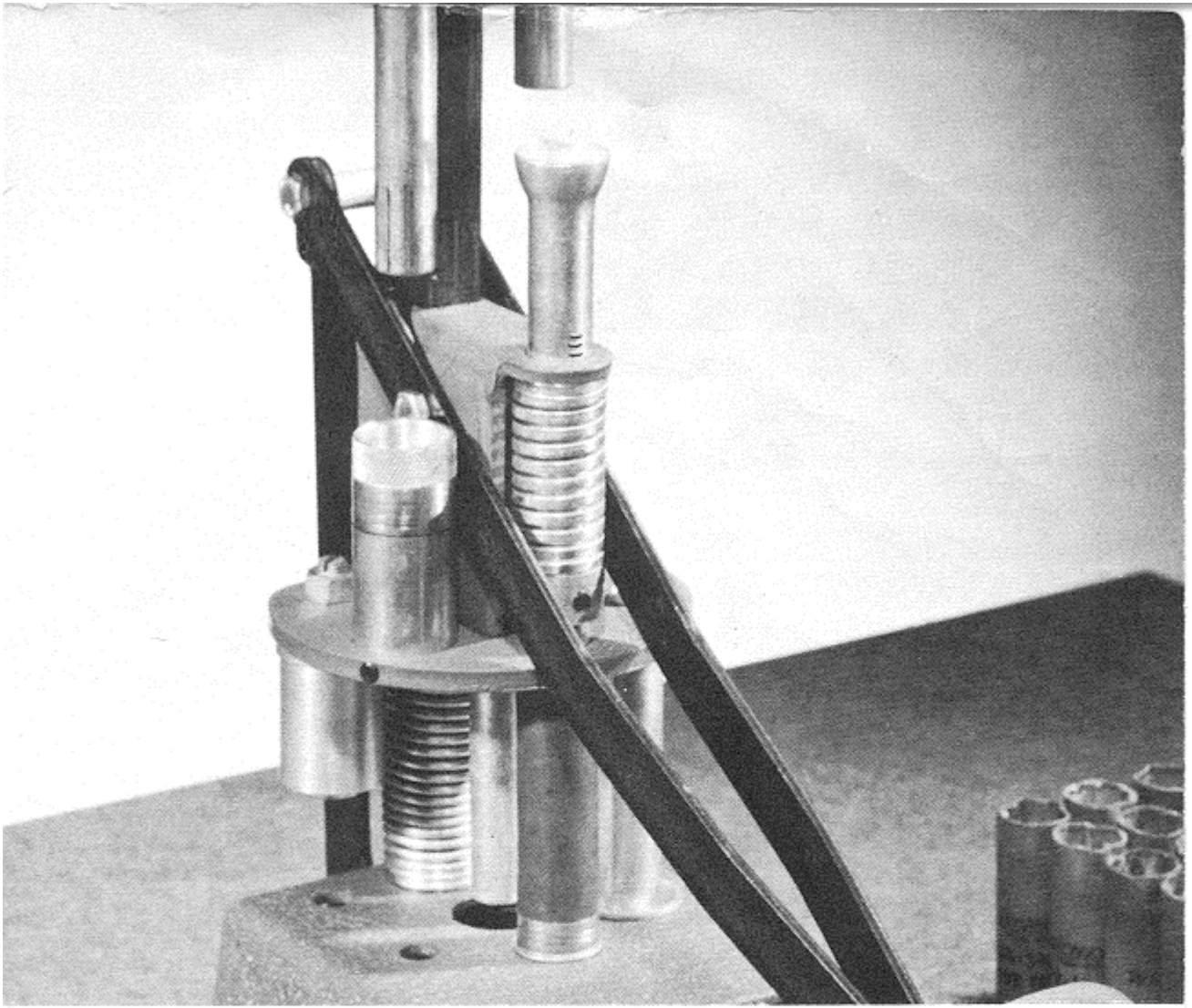
POWDER CHARGING

Slip shell on Drop Tube and push Charging Bar to the left as far as it will go. This drops powder charge into shell.

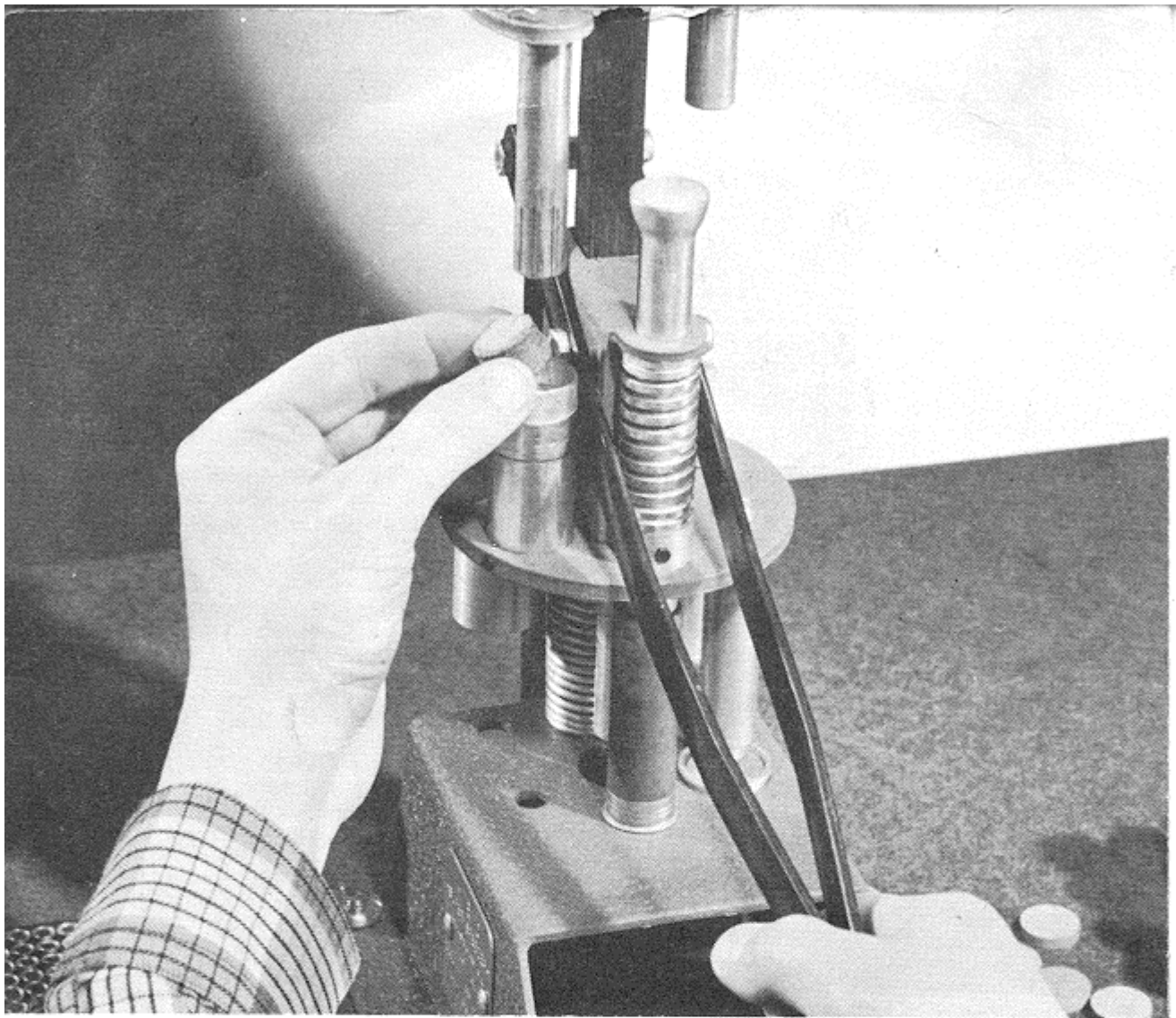


OVER-POWDER WADS

Insert Over-Powder Wad (Photo, left) and place shell under Drop Tube. Depress handle until proper graduation appears on upper part of Drop Tube (Photo, right). Note that the first graduation mark

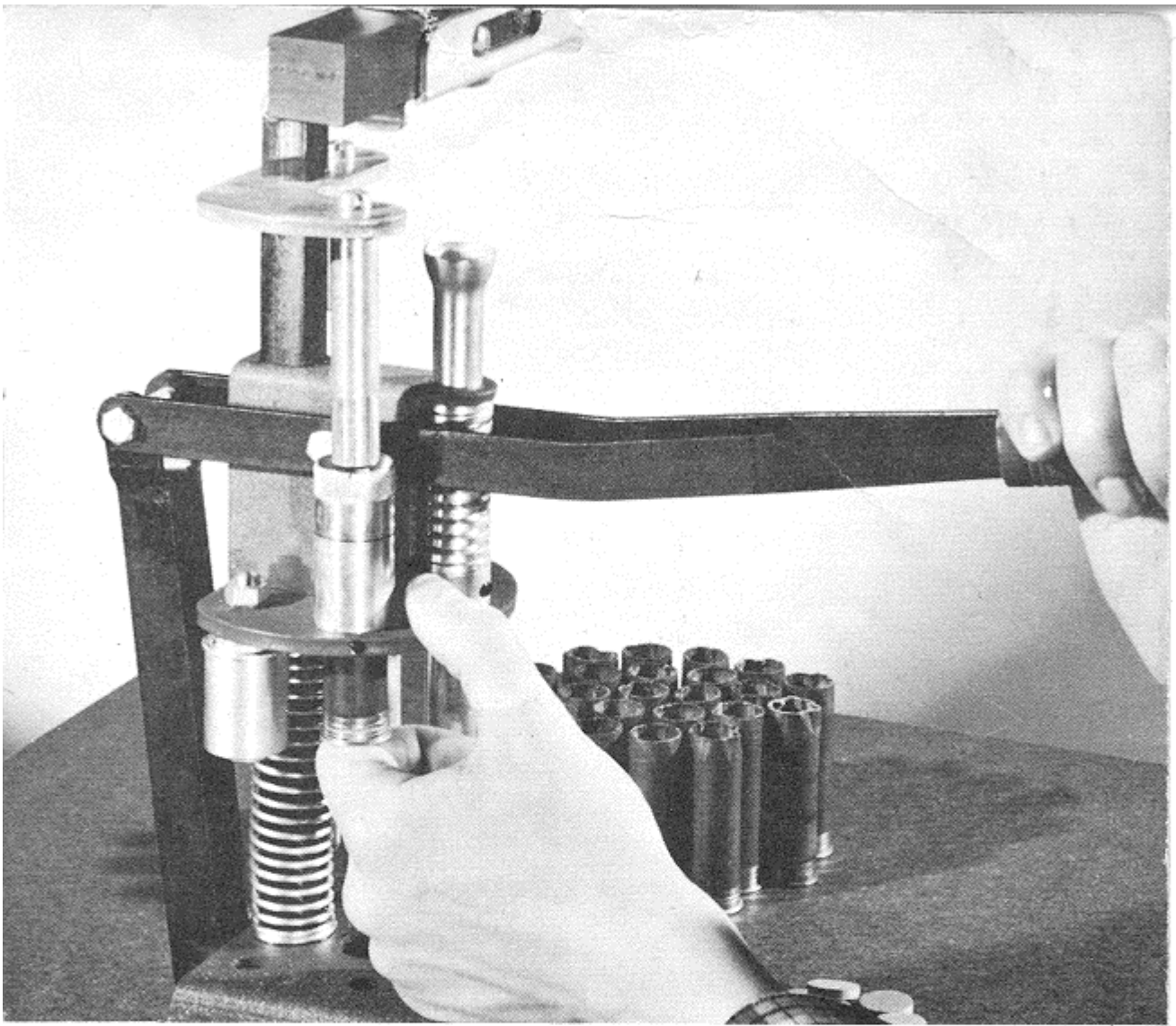


indicates 50 lbs. wad pressure. Each succeeding mark adds 10 lbs. to 120 lbs. maximum pressure. See Loading Chart for recommended wad pressure.

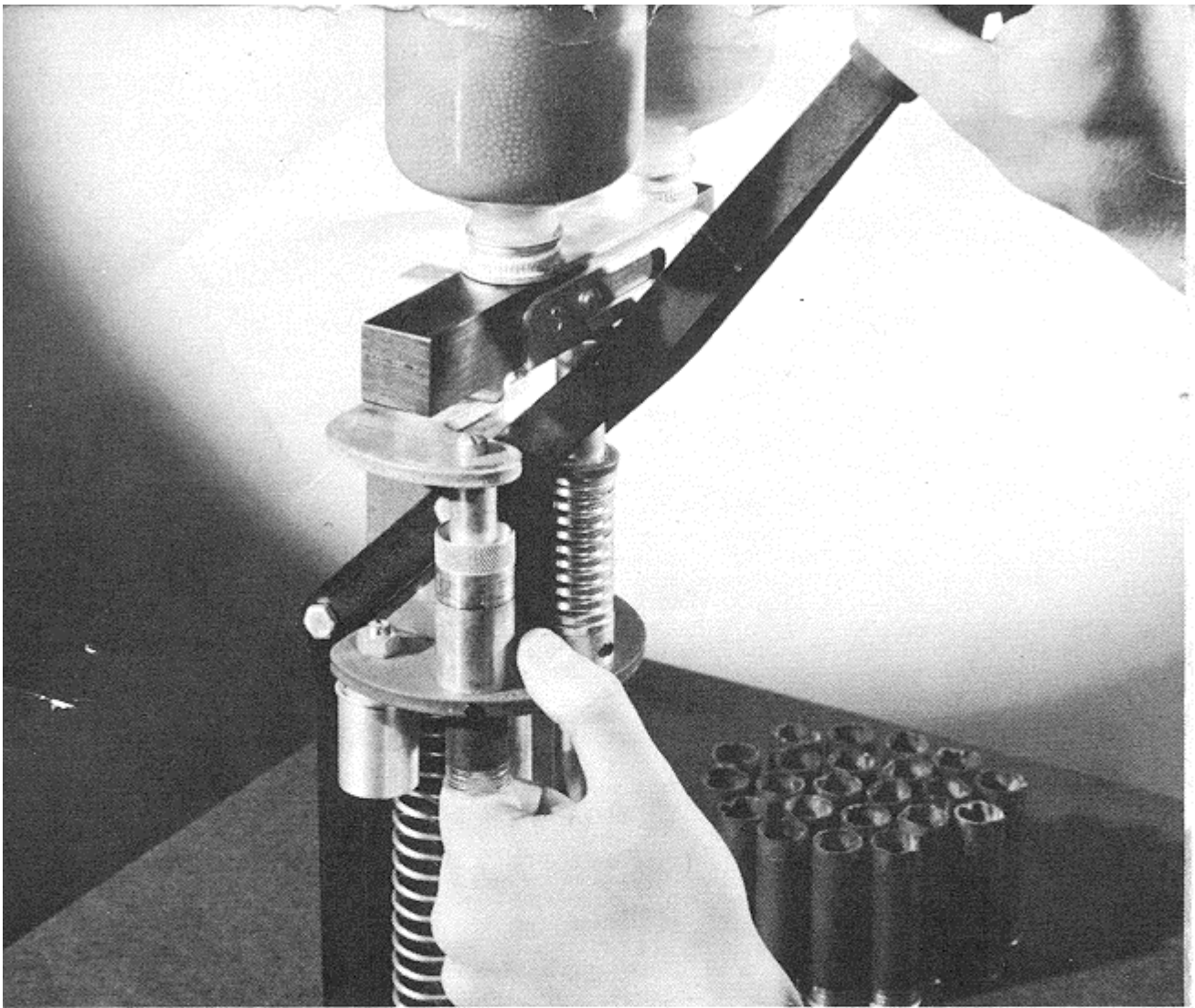


FILLER WAD

While handle is still depressed, place Filler Wad into Automatic Wad Feed (Photo, left). Slowly release handle until Wad ram just touches Filler

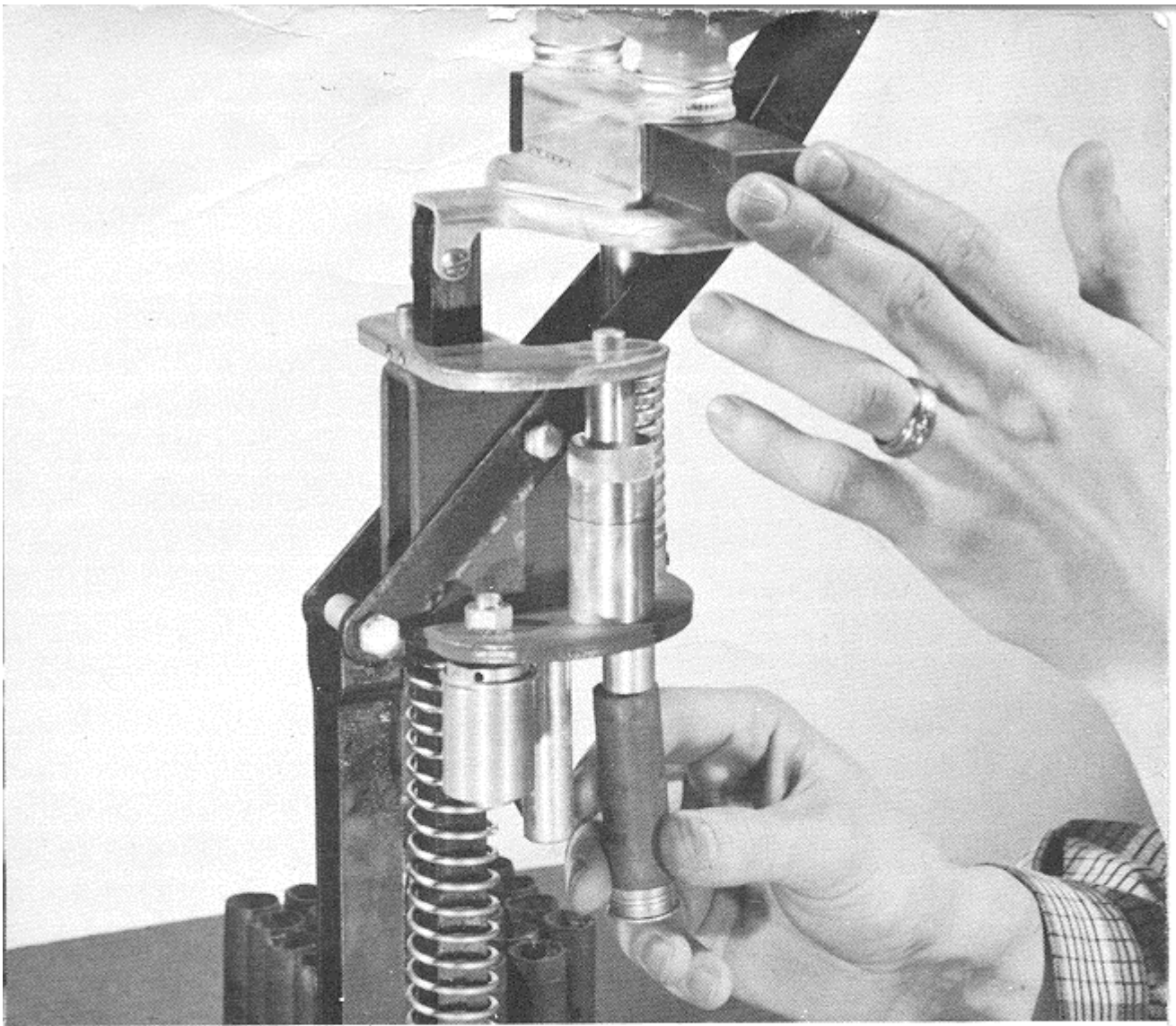


Wad, and while holding in this position remove the shell from Drop Tube and slip into Wad Feed (Photo, right).



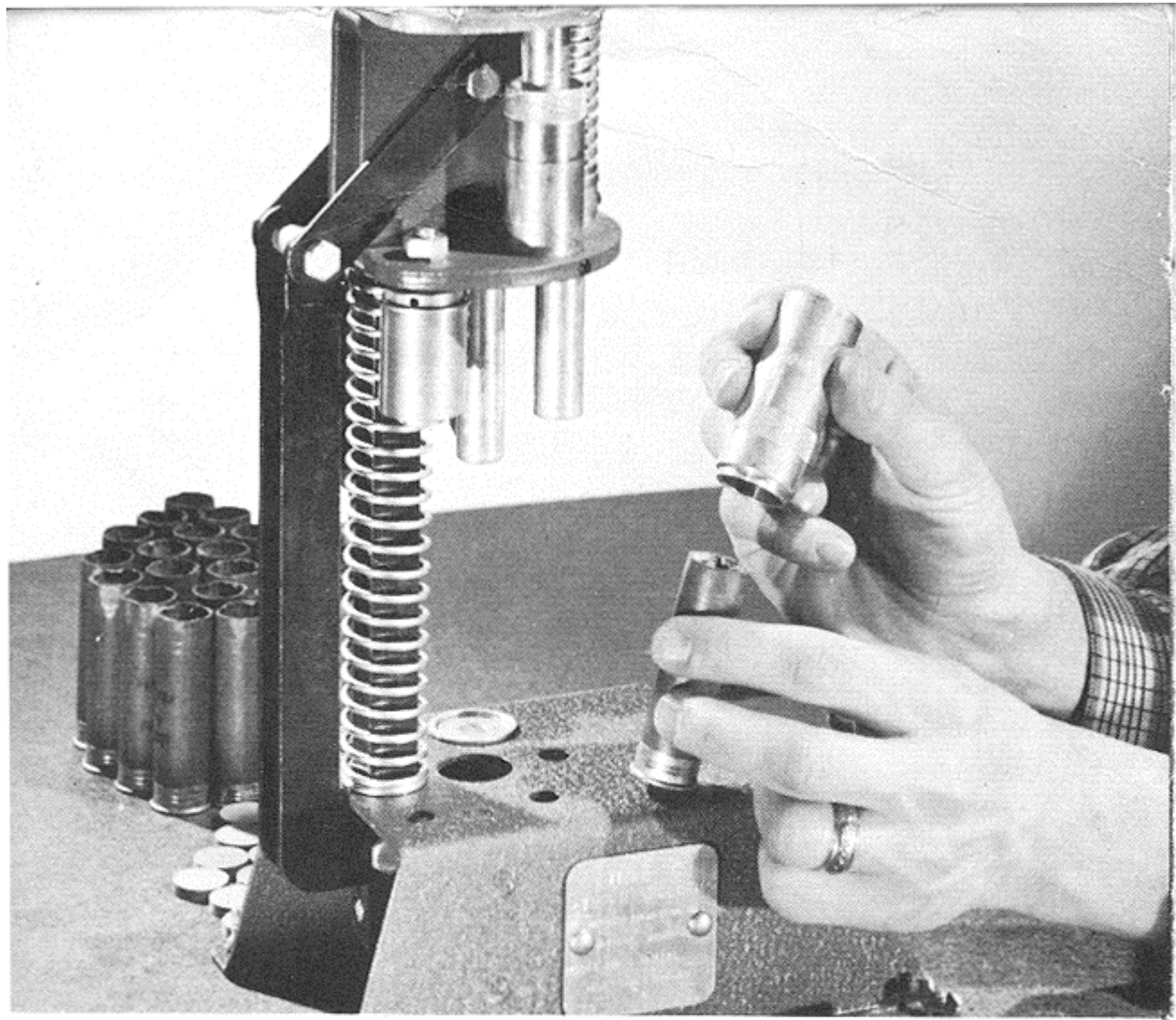
FILLER WAD SEATING

Holding the shell firmly in place with thumb and forefinger (thumb on top of turret as shown) bring handle to "up" position. This will seat the Filler Wad in the shell.



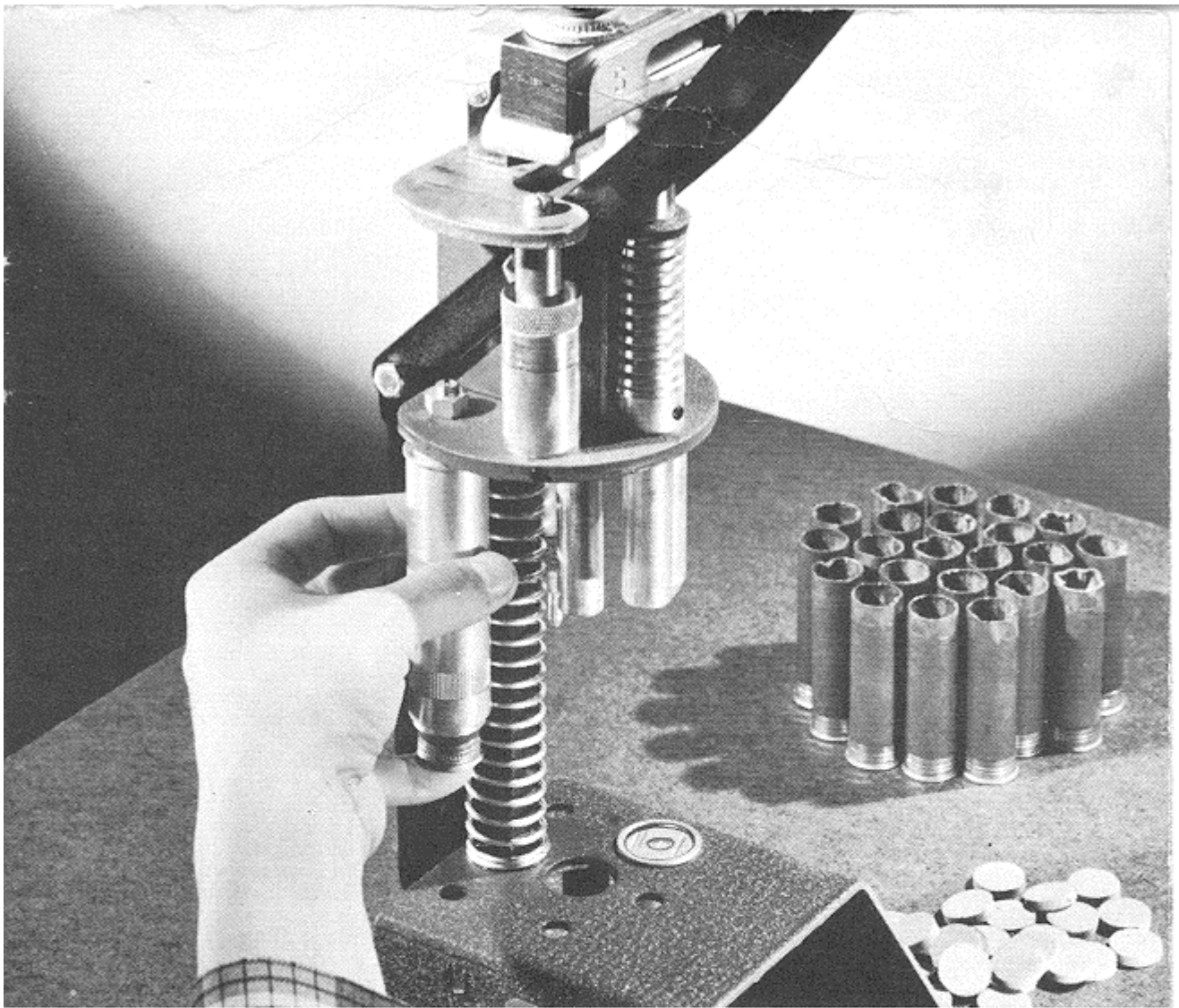
SHOT CHARGING

Remove the shell from the Wad Feed. Slip shell on Drop Tube and move Charging Bar smartly to the right. This drops shot charge into shell.



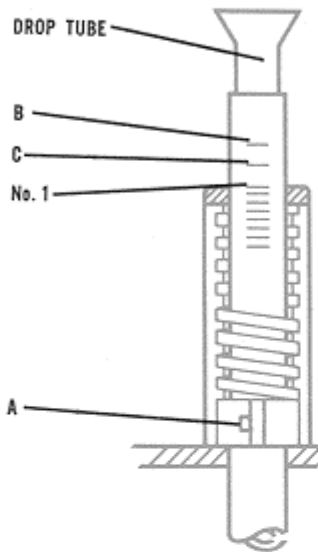
CRIMPING

Slip the Crimping Sleeve, No. 448, over the shell (Photo, left) and then hold Crimping Sleeve with shell up in place under the Crimping Assembly (Photo, right) and depress handle. This performs complete crimping operation with one stroke of the



press handle. If shell lodges in the Crimping Sleeve, place the shell with Crimping Sleeve into opening located below ejecting punch and depress handle. This will eject finished shell.

IF YOU HAVE TO ADJUST the drop tube



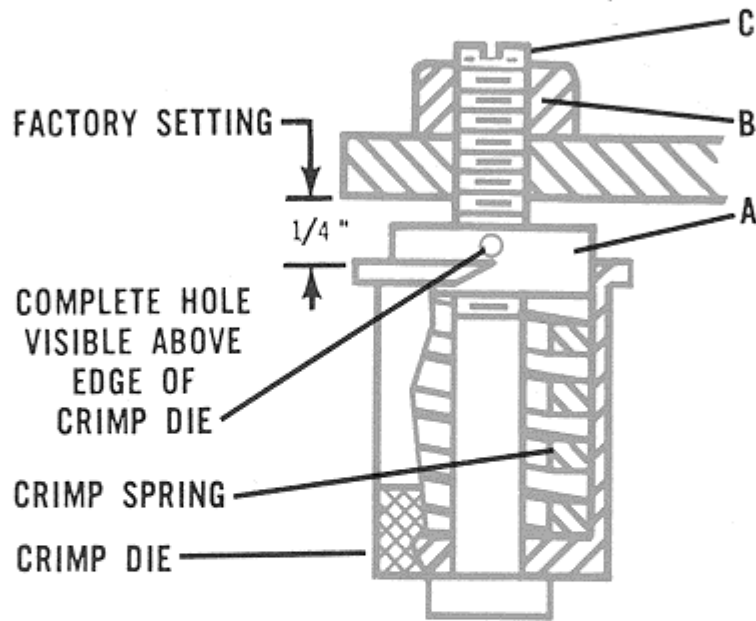
The M E C Drop Tube is arranged to provide any Wad Pressure from 50 to 120 lbs. Proper setting for most 12 gauge, $1\frac{1}{8}$ oz. loads in modern Star Crimp Cases is with the No. 1 graduation just below the surface of the turret bracket. Since the spring is preloaded at 50 lbs. initial movement of the Drop Tube, will bring the first graduation into view indicating 50 lbs. The tube is calibrated so that each additional graduation indicates 10 lbs.

Note: In making adjustments, bear in mind that the compression of the spring provides the increased pressure. Tube graduations are provided only as a means to indicate spring compression.

ations are provided only as a means to indicate spring compression.

Using the Set Screw "A", the Drop Tube may be moved to increase or decrease pressure as required . . . the value of the first graduation changing by 10 lbs. for each $1/16$ " the tube is moved. For example: Lowering the tube to Reference Mark "C" will cause the No. 1 graduation to indicate 70 lbs. with 10 lbs. additional for each succeeding graduation. When lowered to Reference Mark "B", Reference Mark "C" will indicate 70 lbs. . . . graduation No. 1, 90 lbs. For Ballistite or other similar powders, the pressure may be gauged by the spring in the Primer Seating Assembly which indicates 25 lbs. at the bottom of its stroke.

the pressure crimp assembly



For best results on soft, moist or well worn cases it may be necessary to release pressure on Crimping Spring. Do this using the adjusting Nut "A". Be sure to set to original position when processing cases that have good stiff paper at the crimp end. To adjust for depth of crimp release Lock Nut "B" and, using "C" turn Assembly down for increased depth — up for less. Moving press handle slowly during actual crimping operation will usually improve the quality of the crimp.

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 is caused by exerting the recommended pressure on the entire wad column. **ONLY THE OVER POWDER WAD** should be seated under high pressure. Use the exact procedure as recommended on loading chart when loading all $1\frac{1}{8}$ oz. loads. When loading with heavier shot charges, especially over $1\frac{1}{4}$ oz., the wad ram will not completely seat the Filler Wad. This seating operation can be finished by merely pushing up against the Drop Tube when the shot is being charged. No further pressure should be necessary. **NOTE:** If you wish to seat the Filler Wad with the Wad Ram under these circumstances, the Wad Ram may be extended by the addition of Spacer Washers between it and the Part No. 456 Knock-out Yoke.
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 and 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. This is certain to cause trouble, and especially so, when oversize wads, or too much pressure, or a combination of both enter into your loading operations. All makes of shells **DO ABSORB MOISTURE**, and their size is directly related to the moisture content of the paper. Hot weather, when high-humidity conditions are unnoticed, will give you your greatest trouble with oversize shells. Your cases may be as much as .015" larger than when working during the winter or during the season when your storage and working area is heated. Dehydrating your cases in the oven of your kitchen range at a temperature of approximately 200° will give surprisingly good results.
4. Check the wads you are using to 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 Crimping Sleeve. The same condition results from too much pressure on the wad column. Whenever pressure is necessary to eject the shell from the Crimping Sleeve, it may give trouble if your gun has an exceptionally small chamber. Soft cases will tend to swell slightly during storage, and this, too, could cause trouble. Immediately inspect any shell that requires high ejecting pressures. Remember,

any shell that ejects from the Crimping Sleeve under great pressure will expand much more than one that ejects easily.

5. 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.

... with crimping sleeve sticking

Remember, the results you get from your loader will, to a great measure, depend on the condition of the Crimping Sleeve. The bore of the sleeve is made to exacting tolerances and should be protected between periods of operation. A light coating of oil is suggested as a rust and corrosion preventative. Be sure to remove all oil and check for possible rust or pitting before actual use.

1. Check your shells for moisture. If necessary, dry them, as explained in part 3, above.
2. Check your shells for dirt or other foreign materials.
3. Check for oversize wads. To get good results you must use QUALITY components.
4. Do not lubricate your shells. This softens the paper and makes them difficult to resize. In addition, the finished shells will expand in storage.

... with misfires or poor ignition

1. Check your powder and primers for moisture or dampness. Never expose the powder to air for any extended period. Most powders will absorb moisture from the air, especially under humid conditions. This will affect the burning characteristics as well as the weight. Whenever checking the weight of your charges, always use fresh powder from a sealed can and agitate to a certain extent to assure uniformity of mixture. Primers should always be stored in cool, dry surroundings.
2. Check the bases of your shells for "dishing." If you find this condition, exert more pressure during the Repriming operation to flatten them. Poor detonation or misfire is often caused by the firing pin not striking the Primer with the proper impact due to this "dishing."

cont. on page 24

cont. from page 23

3. Be careful not to run out of powder or shot. Many cases of poor detonation or misfire are caused by the loading of several shells before noting that the powder container is empty. A light shot charge often produces muzzle flash or blast.
4. When you have misfire with the Primer showing evidence of good contact with the firing pin, always take the shell apart and examine it. You may have accidentally used a spent primer.
5. Inaccurate Wad Seating causes inconsistent ignition. Simply pushing the Over Powder Wad into the shell and releasing it is not enough. Pausing at the proper pressure is necessary to allow the air to exhaust and the powder to be compacted properly.

... wad seating

MEC recommends that the Over Powder Wad always be seated individually for the following reasons:

1. Filler Wads vary in size, in texture and in elasticity. The "drag" due to friction varies widely, and naturally this affects the actual pressure over the powder even though the Wad Column is seated at exactly the recommended pressure.
2. The size of the fired shell is not at all uniform. It varies in accordance with make, size of the gun chamber in which it was originally fired, temperature and moisture content, thus causing further complications so far as "drag" is concerned.
3. Tendency of the Filler Wad to break down due to the pressure which may destroy the elastic qualities of the Wad. This "breaking-down" of the fibers and squashing of the Filler Wad produces finished shells which bulge to varying degrees depending on the condition of the case. It also impairs the proper functioning of the Filler Wad which is primarily to act as a cushion against excessive breach pressures.

note

All 12 and 20 gauge Loaders are shipped with an Extension Ring, Part No. 466. This ring is to extend the crimping sleeve for the processing of 3" shells. To use, simply snap the ring in place at the base of the sleeve. Extension rings to process new cases or cases of other lengths are also available. See page 27.

ACCESSORY EQUIPMENT

M E C ELECTRIC SHELL FORMER — F33b

Tests cases for blow-out at the brass, and reshapes and reconditions the shell for easy insertion of the wads. Makes it possible to re-use shells that might otherwise be discarded. Includes bracket for mounting to loader or to bench. Price.....\$4.95.

M E C CAP CONVERSION KIT 442C-(12-16-20-28)

Converts Loading Tool to the use of caps. Replaces standard depriming and repriming operation by merely repriming and replacing caps only (not entire battery as in ordinary method). This kit is for the loading "enthusiast" who loads mostly as a hobby. Available in 12, 16, 20 and 28 gauge (1 kit can be used for all gauges). Price.....\$9.00.

CAP-TYPE DIE SETS

Complete Cap Type Die Sets are also available in 12, 16, 20 and 28 gauge.

M E C DIE SETS — 441P (PRIMER TYPE — ALL GAUGES)

Complete die sets for converting to any gauge. Dies can be easily changed in a matter of minutes to accommodate any gauge from 410 to the heaviest 10-gauge Magnum. (Charging bars extra.)

441P-35-10 (3½" Magnum).....	\$18.75
441P-10 (2⅞")	16.00
441P-12 (2¾" and 3").....	16.00
441-P-16 (2¾" only).....	16.00*
441P-20 (2¾" and 3").....	16.00
441P-28 (2¾" only).....	16.00
441P-410 (2½" and 3").....	22.50**

Note: Above prices except 410 ga., do not include Drop Tube.

441P-35-10, 10, 12 and 16 use same Drop Tubes.

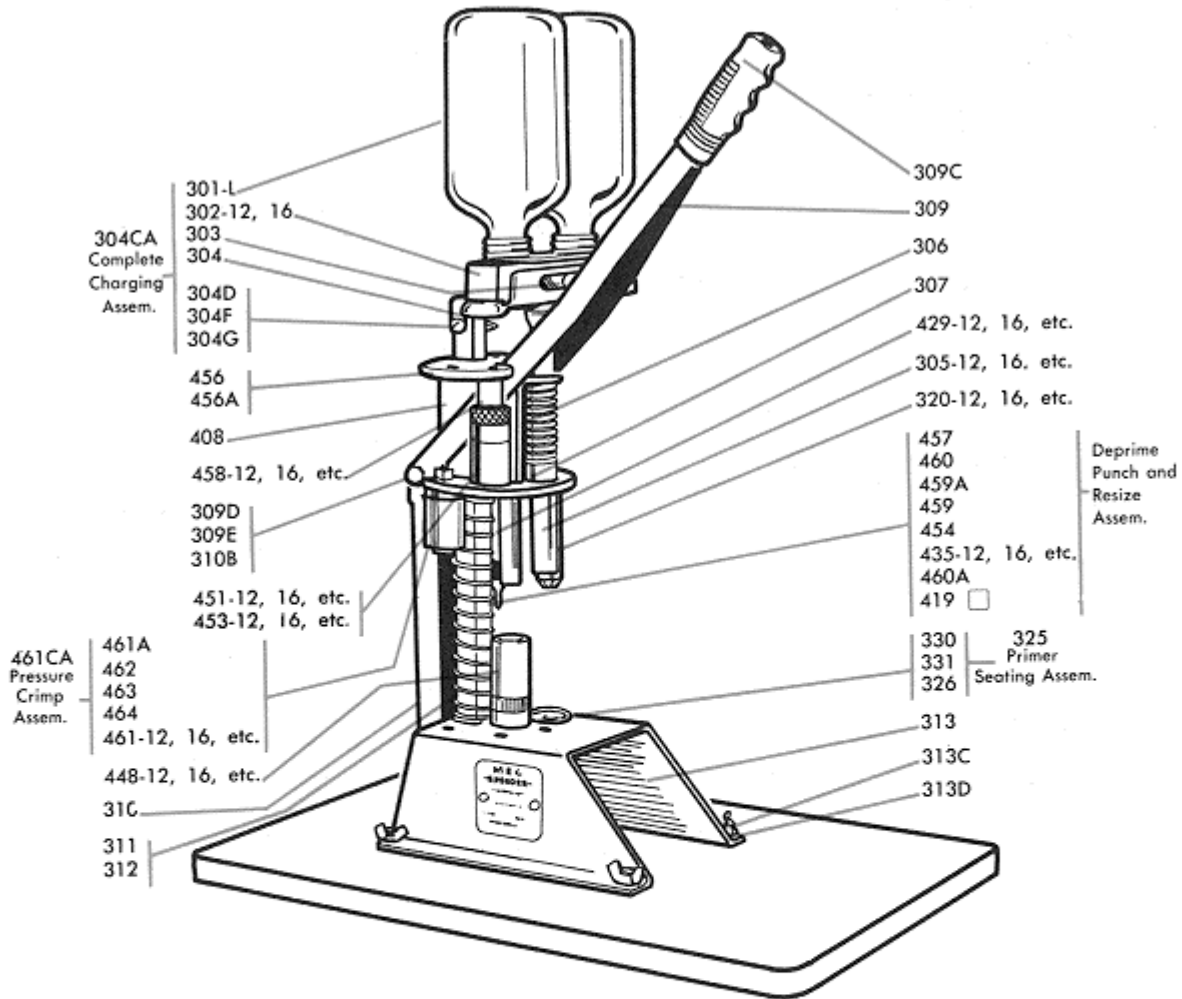
441P-20 and 28 use same Drop Tubes.

If Drop Tube is necessary, please specify by adding letter "W" to part number and \$3.00 to the above prices.

*For adapting to 2-9/16" shells, see CRIMPING SLEEVE No. 448-9-16 (pg. 27)

**Drop Tube and special dies, brackets, etc., included.

MEC PARTS and PRICE LIST



301-L	Large Container with Caps	\$.90 ea.
302-12, 16, etc.	Charging Bar	3.50 ea.
303	Bar Stop Screw .....	.25 ea.
304	Measure Only	5.00 ea.
304CA	Shot and Powder Measure Complete with Bar, Containers, etc.	11.20 ea.
304D	Measure Pivot Screw .....	.25 ea.
304E	Measure Set Screw .....	.25 ea.
304F	Measure Wing Nut .....	.25 ea.
304G	Grommet .....	.25 ea.
305-12, 16, etc.*	Drop Tube	3.00 ea.
306	Pressure Spring	1.00 ea.
307	Set Collar .....	.75 ea.
309	Handle	3.00 ea.
309C	Grip .....	.75 ea.
309D	Handle Bolt (2) .....	.50 ea.

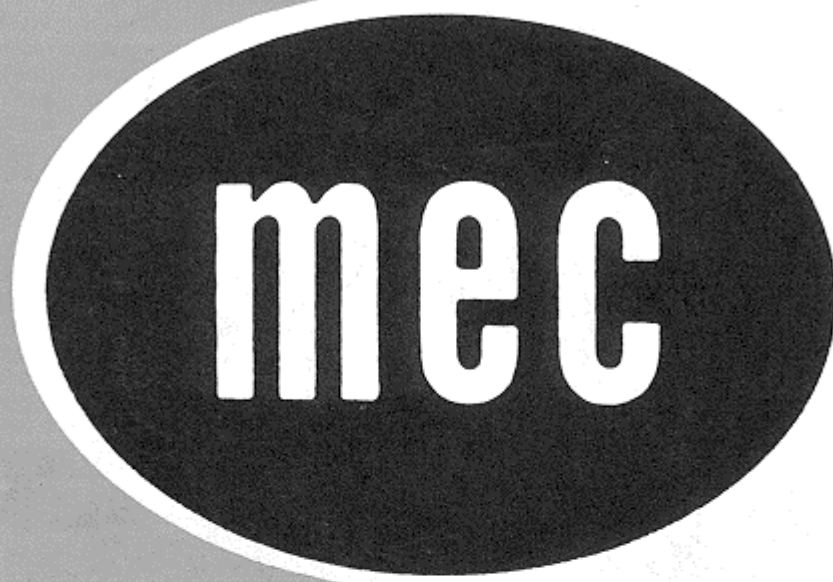
309E	Stop Nut (3) 1/4-20 .....	.25 ea.
310	Link (2)	2.00 pr.
310B	Link Spacer .....	.50 ea.
311	Column	3.50 ea.
312	Column Spring	1.00 ea.
313	Base	5.00 ea.
313C	Base Mounting Bolt .....	.25 ea.
313D	Wing Nut .....	.25 ea.
320-12, 16, etc.	Reprime Punch	3.00 ea.
325	Primer Seating Assembly	3.50 ea.
325C	Cap Seating Assembly	3.50 ea.
326	Primer Cup Only	2.00 ea.
326C	Cap Cup Only	2.00 ea.
330	Spring, Primer .....	.75 ea.
330C	Spring, Cap .....	.75 ea.
331	Spring Pad, Primer	1.00 ea.
331C	Spring Pad, Cap	1.00 ea.
408	Turret Frame	10.00 ea.
419 <input type="checkbox"/>	Deprime Punch	2.00 ea.
419C <input type="checkbox"/>	Decap Punch	3.50 ea.
429-12, 16, etc.	Eject Punch	3.00 ea.
435-12, 16, etc.	Resizing & Pilot Ring	1.00 ea.
448-12, 16, etc.	Crimping Sleeve	3.50 ea.
451-12, 16, etc.	Wad Guide	3.00 ea.
453-12, 16, etc.	Fingers, Wad Guide .....	.50 ea.
454	Support Tube	1.00 ea.
456	Knock-out Yoke	1.00 ea.
456A	Set Screw .....	.25 ea.
457	Knock-out Bar	1.00 ea.
458-12, 16, etc.	Wad Ram	1.00 ea.
459	Bushing	1.00 ea.
459A	Lock Nut .....	.25 ea.
460	Eject Bolt .....	.25 ea.
460A	Lock Nut .....	.25 ea.
461-12, 16, etc.	Crimp Punch	1.50 ea.
461A	Lock Nut .....	.25 ea.
461CA	Pressure Crimp Assembly	5.00 ea.
462	Spring	1.00 ea.
463	Adj. Nut	1.00 ea.
464	Spring Housing	2.00 ea.
466	Extension Ring (3" Shell) .....	.50 ea.

other accessory equipment

336C	Cap Adaptor	1.00 ea.
337C	Anvil Seating Tool .....	.50 ea.
339C	Decap Pin .....	.50 ea.
348-12, 16, etc.	Resizing Sleeve	3.50 ea.
434-12, 16, etc.	Star Crimp Head	4.00 ea.
435-12, 16, etc.	Resizing and Pilot Ring	1.00 ea.
448-9-16	Crimping Sleeve (16 Ga. 2-9/16")	3.50 ea.
466A	Extension Ring (New Case) .....	.50 ea.
466B	Extension Ring (3" New Case) .....	.50 ea.
466C	Extension Ring (10 Ga. 3 1/2") .....	.50 ea.
466D	Extension Ring (10 Ga. 3 1/2" New Case) ..	.50 ea.
466E	Extension Ring (410 Ga. 3") .....	.50 ea.

*10, 12 16 20 and 28 gauges use Drop Tube

Same for all Gauges Except 410



MAYVILLE
ENGINEERING COMPANY, INC.

Mayville, Wisconsin 53050