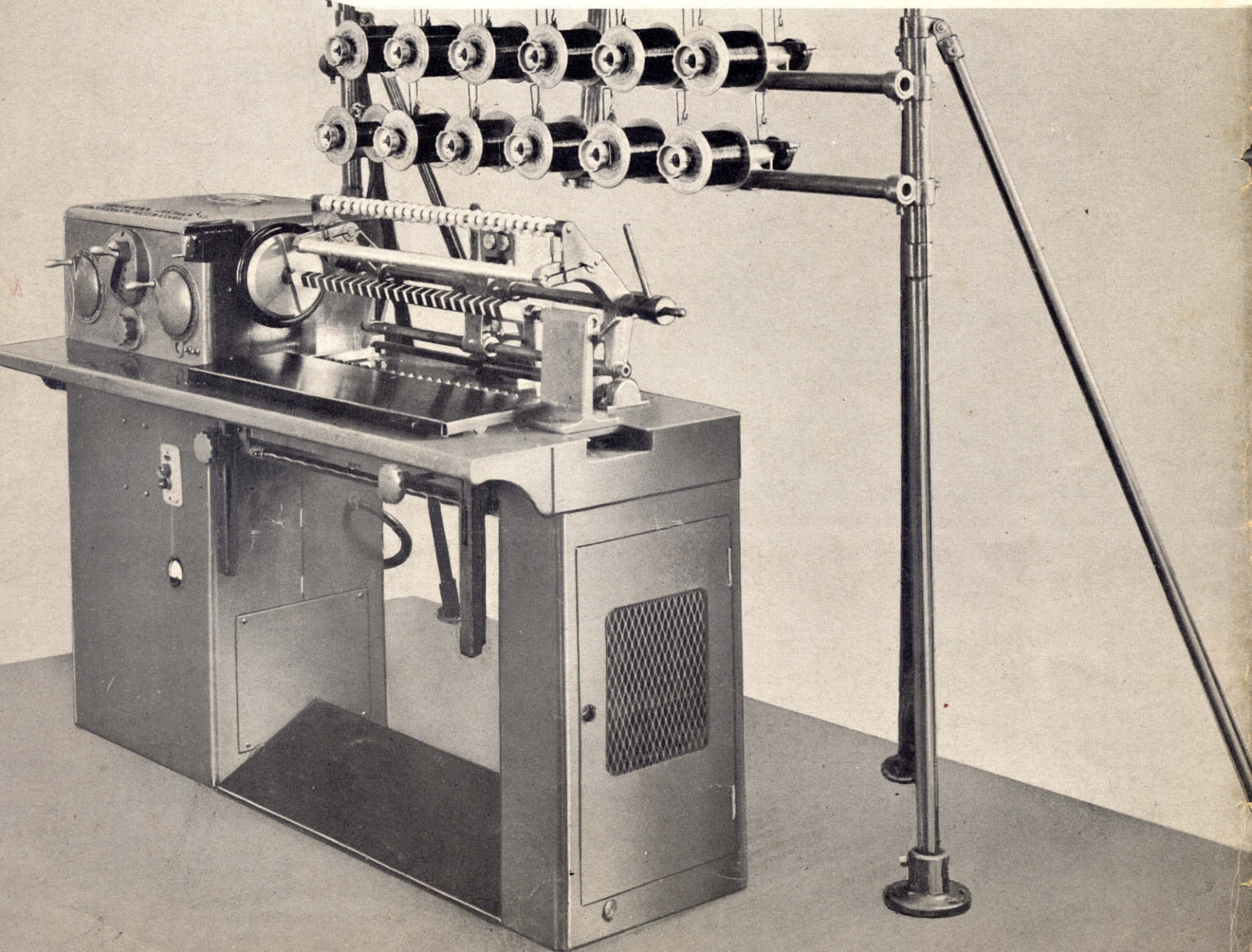


BULLETIN 108B

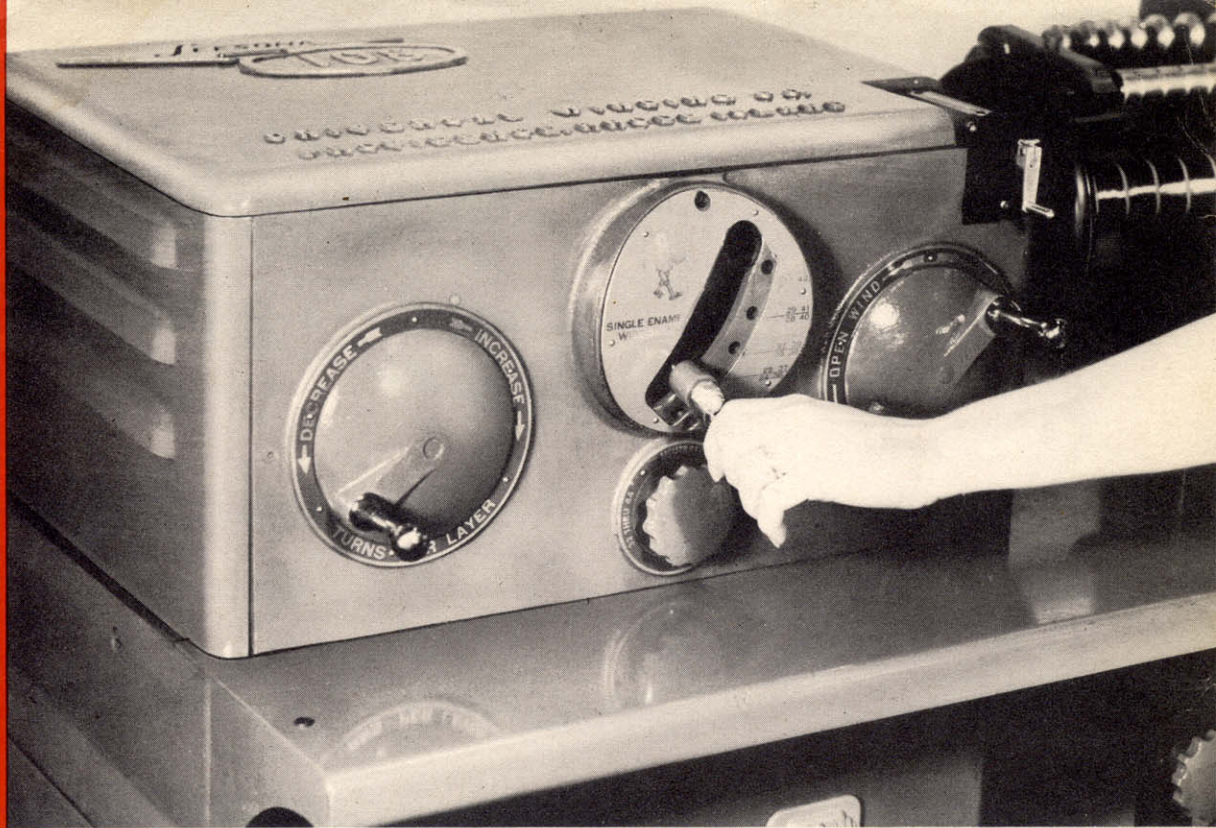
NO. 108 COIL WINDER

UNIVERSAL WINDING COMPANY

**Quick-set-up coil winder for
hand-feed paper-insulated
coils in stick form**



**REDUCE
YOUR
SET-UP
TIME,
TO SPEED UP
YOUR
PRODUCTION**



on winding schedules for long or short runs...for a wide variety of coils

Leesona® No. 108 offers modern finger-tip control — with no gears, no cams to remove.

The operator can make principle adjustments in three minutes!

Four external controls govern gearing for wire size, winding length and turns per layer.

Field Research Results Included in Design

This is a machine designed to meet the demand for a modern hand-feed coil winder with quick set-up features. Test models were placed with prominent manufacturers having varied requirements. Each manufacturer was requested to suggest any adaptations which he thought best suited his work. Refinements based on these suggestions are now included in the 108 machine.

Here's Why Operators Find No. 108 Winder So Easy To Run

1. Controls. All controls are conveniently located for ease of operation.

As part of the arbor transfer, one motion of the tail stock handle unlocks, retracts, and relocks the live center.

Coil marking blades are brought into contact with coil surface by a foot lever which leaves the operator's hands free. This speeds up arbor transfer.

The paper feed tray can be located at arbor height for rapid and accurate insertion of paper. Or, it can be lowered out of position if so desired. It can be advanced or retracted to make paper insertion easier.

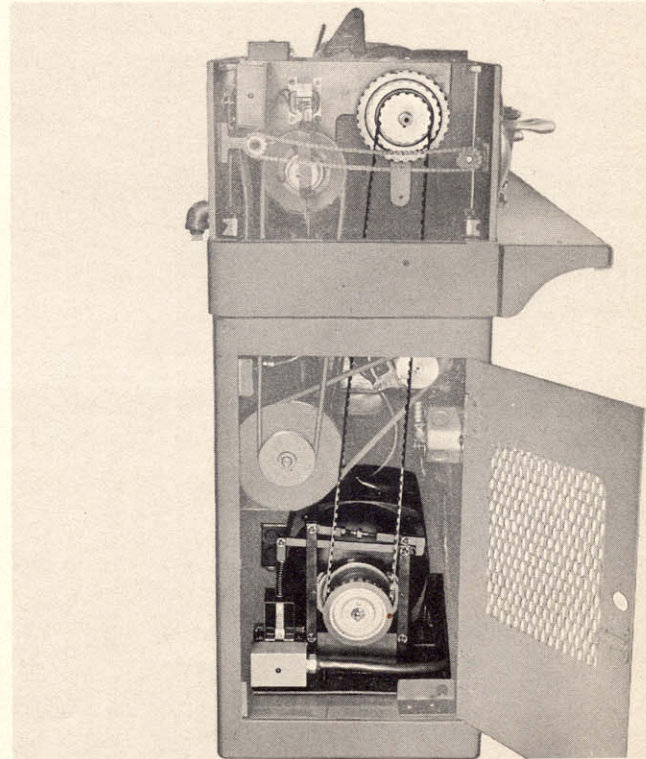
The treadle through which the operator controls starting speed and braking is large enough so that it can be operated by either foot.

The machine has been designed with arbor location at an accessible level so that the operator may be seated during the entire winding cycle.

2. Counter. The counter is mounted for convenient operation and can be pre-set to stop the machine automatically when the correct number of wire turns has been completed.

3. Electrical Controls. Electrical controls assure accuracy and dependability of operation. One switch on the wire spool rack

automatically opens the circuit and stops the machine when a wire breaks or runs out. Another switch on the counter stops the machine when the pre-determined number of turns has been wound. Winding direction lights show when paper should be fed.



A direct drive from an adjustable speed motor is standard equipment on the No. 108 Winder. This assures positive pulling power for winding heavy wires. Also, it allows the winding arbor to be started and stopped smoothly on both fine and coarse wires. An ammeter indicates the safe operating load of the machine.

LEESONA®

No. 108 coil winder

provides these essential features

Quick Set-Up. The need for quick set-up is all important. In this model, the time for set-up is at a minimum — time consumed for removing change gears and cams is completely eliminated. Controls for wire size, wire turns per layer and total turns per coil are within easy reach of the operator.

Ease of operation. Paper shelf can be lowered at end of a coil stick to assure complete accessibility to the winding arbor for the transfer of wire turns and removal of finished coil stick.

Flexibility. Wire sizes from No. 20 to No. 42 (B&S) and finer can be wound into coils with maximum length of 4 inches and diameter of 5 inches, using turns per inch from 26 to 390. Number of coils wound at once is determined by length of each coil and maximum width of insulating paper, usually 24 inches. As many as 30 coils can be accommodated at one time.

Attractive, Modern Design. Operators, particularly women, have admired the simple modern lines of the 108 machine, its ease of control and the promise it gives for reduced fatigue because of its greater conveniences.

Look at these Special Design Features!

1. Reversing Clutch Gives Greater Accuracy, Less Wear. The clutch which reverses the traverse operates positively through hardened sears which insure a uniform number of wire turns in every layer.

2. Lead Screw Type Traverse Gives Positive Wire Turn Lay, Speeds Up Lead Attaching Procedures. It provides accurate control of the wire turn spacing. Also with this type of traverse you can take out a tap at any point in the wire layer, insert a sheet of insulating paper and start winding a new layer immediately. You don't have to relocate the wire guides at the point on the wire layer from which the tap was taken.

3. Quick Set-Up for Wire Turn Spacing. The leadscrew gearing is independent of the wire layer length and is designed on a turn per-inch basis. Selection of gears depends upon the wire size and closeness of wind. This system provides any specified spacing between turns within the range of the machine. It permits a compact two-stage quick-change gear system. A set-up for any turn ratio is made simply by moving a lever and a knob to correspond to the wire size specified. This eliminates the necessity of figuring on or removing change gears. No extra supply of gears or cams is needed.

4. Rapid Traverse for Positioning Leads. An auxiliary drive re-indexes the wire guides to either end of the traverse when the wires are transferred to a new stick or when taps are taken out. This is controlled by two push-button switches located on the front of the gear case. The wire guides stop automatically when they reach the end of the stroke.

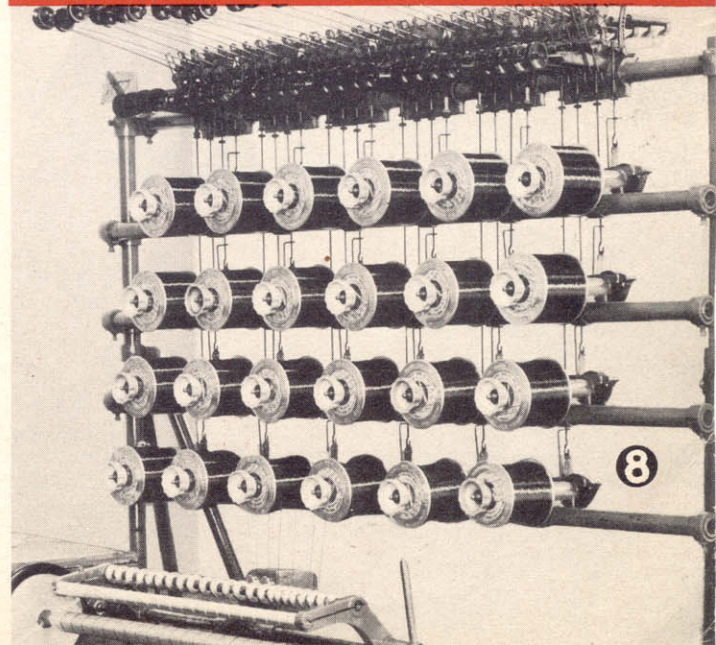
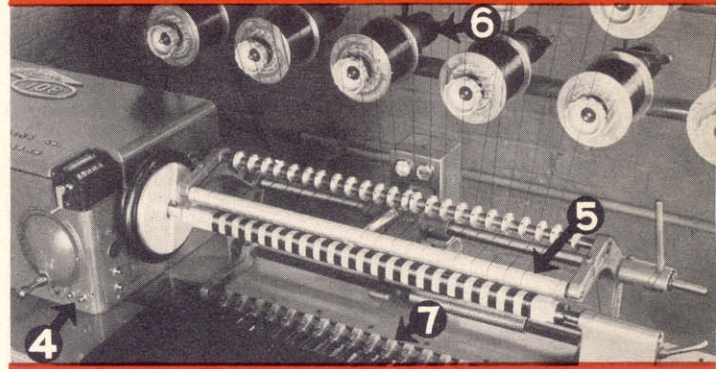
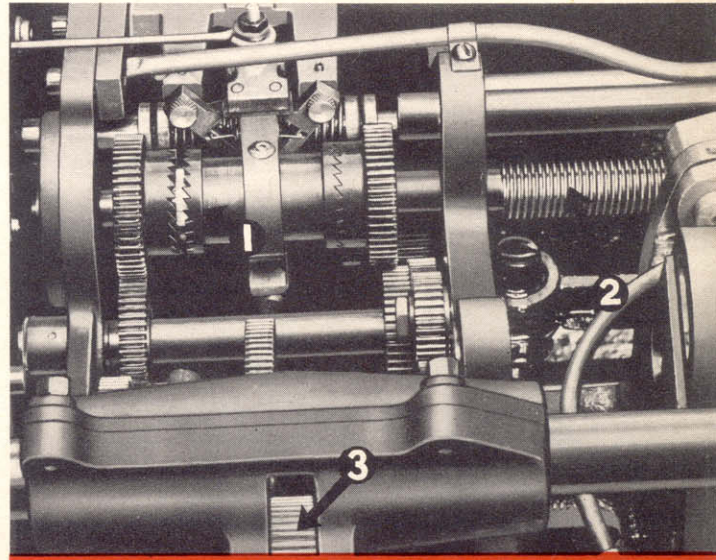
5. Wire Guides. The No. 108 machine can be equipped with front or "main" wire guides in either of two different types. For quick set-up, and where the coil specifications do not change too frequently, a "roller-type" guide is used. This consists of a metal roll grooved for one definite overall length of coil. These roller type guides can be quickly taken out or mounted in the machine at a considerable saving in set-up time.

For a wide variety of work, however, the adjustable individual type of guide may be preferred. A series of these are mounted on a through shaft and can be readily positioned for various overall lengths of coil.

6. Tensions. The felt-lined strap unrolling tension is employed on the 108 machine and assures efficient tension on wire sizes from #20 to 42 (B&S). By recording the setting for any given wire size, the time required to reset these tensions is cut to a minimum, and greatly facilitates set-up operations.

7. Coil Marking Blades. The machine comes equipped with a set of coil marking blades to agree with the number of coils wound at once. Oftentimes the machine user will obtain extra assemblies of these coil marking blades so that a complete set-up will be available when coil specifications change. This insures an interesting saving in set-up time.

8. Wire Spool Rack. The upright mounting support for holding the wire spools and tensions is braced independently of the machine, and thus, no vibration is imparted either to the tensions or to the machine. Furthermore, this rack is equipped with a "wire breakage detector" by means of which the machine will stop automatically when a wire spool runs out or when wire breaks may occur.



SPECIFICATIONS

Floor space 59" x 22½" (Machine only)

Wire spool rack 63" wide

Total, floor space 86½" x 46" (Machine and wire spool rack)

Height to top of "compensators" on wire spool rack, 82"

Height of machine proper, 41½"

Height of winding arbor or spindle, 36"

Minimum length of wire layer, ¼"

Maximum length of wire layer, 4"

Minimum number of wire turns per inch, 26

Maximum number of wire turns per inch, 390

Minimum diameter of wire with standard unrolling tensions, #42 (B&S)

Maximum diameter of wire with standard unrolling tensions, #20 (B&S)

Minimum width of insulating paper (for one coil only), ½"

Maximum width of insulating paper, 24" to 26"

Minimum inside diameter of coil, with 24" length of arbor, ½" round or ⅜" square.

(For smaller diameters, use shorter arbors and narrower width of paper.)

Maximum outside diameter of coil with transfer operation, 5" round or square.

Winding speed, up to 2400 R.P.M. maximum.

Gross weight, two cases, 1250 lbs.

Net weight, machine 544 lbs., tensions and rack 206 lbs. Total 750 lbs.

Case dimensions, machine 68" x 44" x 27".

Case dimensions, tensions and rack, 64" x 51" x 18".

Total cubic feet, 2 cases, 47 and 34, total 81 cu. feet.

MACHINE EQUIPMENT

Machine equipment includes wire guides (either roller type or individual adjustable type), arbor ends or inserts for both wood and metal arbors, coil marking blades with safety guards, in multiples to match tension equipment, adjustable paper shelf, wire spool rack with its wire breakage detector and electric controls for 115 volts, 60 cycle, 1 phase current.

Auxiliary gearing is included for spacing wire sizes from #10-#19 and #40-#50 (B&S) — such as might be used for "bifilar" windings.

EXTRA EQUIPMENT

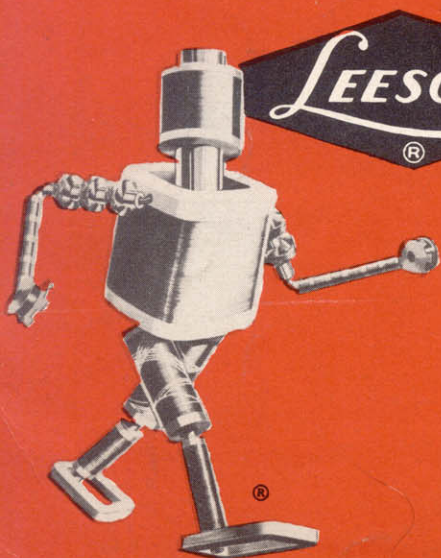
Motor, ¾ h.p., 800-2400 R.P.M., adjustable speed.

Transformer when voltage is other than 115-V.

Winding arbors made to specifications.

Added roller type wire guides made to specifications.

Space-winding attachment for wide spacing of wire turns (should be built into machine at time of assembly).



LEESONA[®]

**FOR WINDING COILS IN QUANTITY
ACCURATELY . . . AUTOMATICALLY
USE UNIVERSAL WINDING MACHINES**

UNIVERSAL WINDING COMPANY

P. O. Box 1605, PROVIDENCE 1, R. I.

9 SO. CLINTON ST., CHICAGO 6, ILL.

Sales Representatives: E. G. Paules, Los Angeles, Cal.

W. J. Westaway Co., Ltd., Montreal, Que., Hamilton, Ont., in Canada.

We invite you to visit our Coil Winding Demonstration Rooms in Providence and Chicago.

A Wide Range of Winding Machines for a Wide Range of Coils