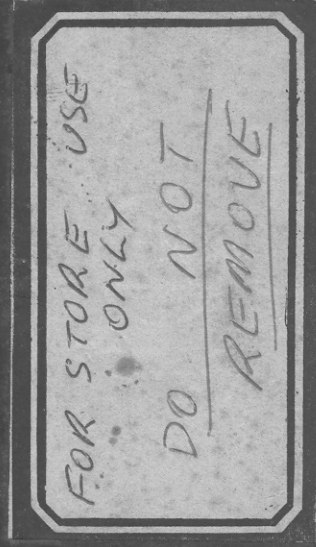




Automatic

COIL WINDERS



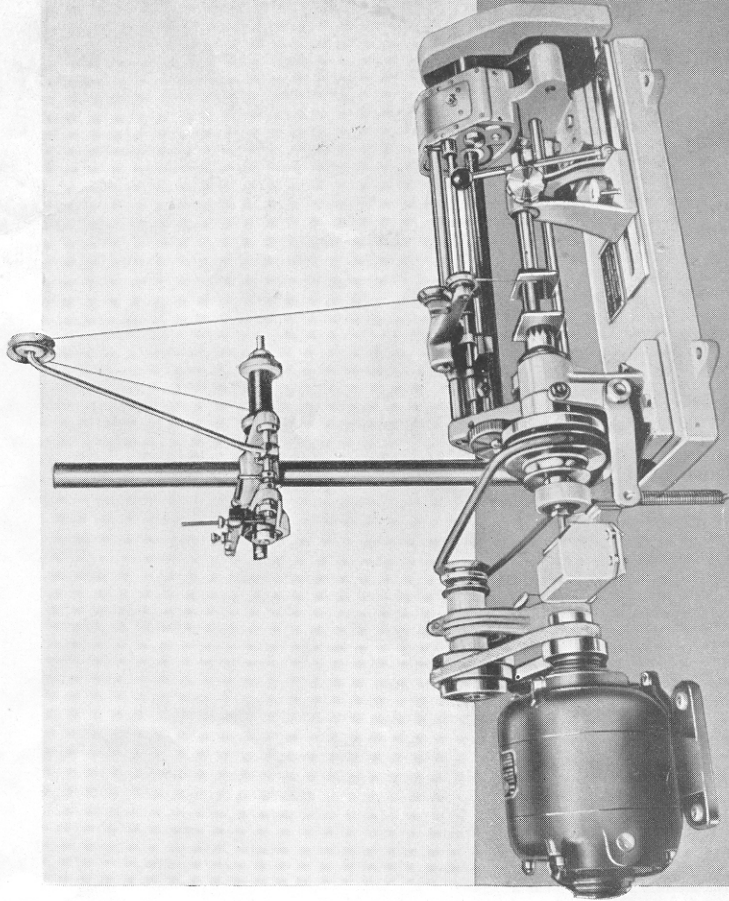
Douglas

NO. 6 AUTOMATIC COIL WINDER

This is a power-driven general purpose coil winding machine to handle wires between 0.001" (0.025 mm.) and 0.07" (1.78 mm.) and will wind coils up to 9 $\frac{1}{4}$ " (235 mm.) in length and 7 $\frac{1}{2}$ " (191 mm.) diameter or diagonal. The traverse motion is obtained by means of a lead screw operated through a chain of four readily changed gears. Twelve headstock spindle speeds varying between 350 and 3,500 r.p.m. allow for the winding of a very wide range of coils. The machine is available in three forms, firstly as illustrated, secondly fitted with a heavy duty head for winding coils with the thicker gauges of wire in the range mentioned above, and thirdly fitted with a pre-set revolution counter and electro-magnetic cut-out, which stops the machine automatically at a given number of turns. It can also be fitted with any number of wire guides and reel carriers up to four, so that a number of coils can be wound at the same time.

Bench Space: 34" x 27" (864 mm. x 686 mm.)

Height: 33" (839 mm.)



ALL BRITISH

COIL WINDING MACHINES & EQUIPMENT

As the leading European manufacturers of Automatic Coil Winders, we take pride in presenting the following abridged details of our extensive range of machines and equipment.

Superiority of design and our high standard of workmanship ensure that "DOUGLAS" and "MACADIE" machines will render efficient and trouble-free service for many years and will enable users to wind coils with speed and efficiency by the most modern methods.

The specifications published in this brochure are representative of our standard productions, but we are always pleased to co-operate with customers by modifying standard machines to suit particular requirements.

Many of the machines illustrated are in continuous use in our own works and we are always pleased to give demonstrations, by appointment, under actual production conditions.

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Contractors to the Admiralty, War Office, Air Ministry, Post Office, Ministry of Supply, Crown Agents for the Colonies, and Electrical and Telephone Manufacturers throughout the World.

No. 1 AUTOMATIC COIL WINDER

This is a hand-driven coil winding machine which is particularly suitable for the winding of short runs or single coils since it can be set up very quickly. It will handle wires from 0.002" (0.05 mm.) to 0.02" (0.5 mm.) and will wind coils up to 5" (127 mm.) in length and 4 1/4" (108 mm.) diameter or diagonal. The geared hand drive allows for winding speeds up to 2,000 r.p.m. without undue effort.

Bench Space: 17" x 14" (432 mm. x 356 mm.)

Height: 17.5" (445 mm.)

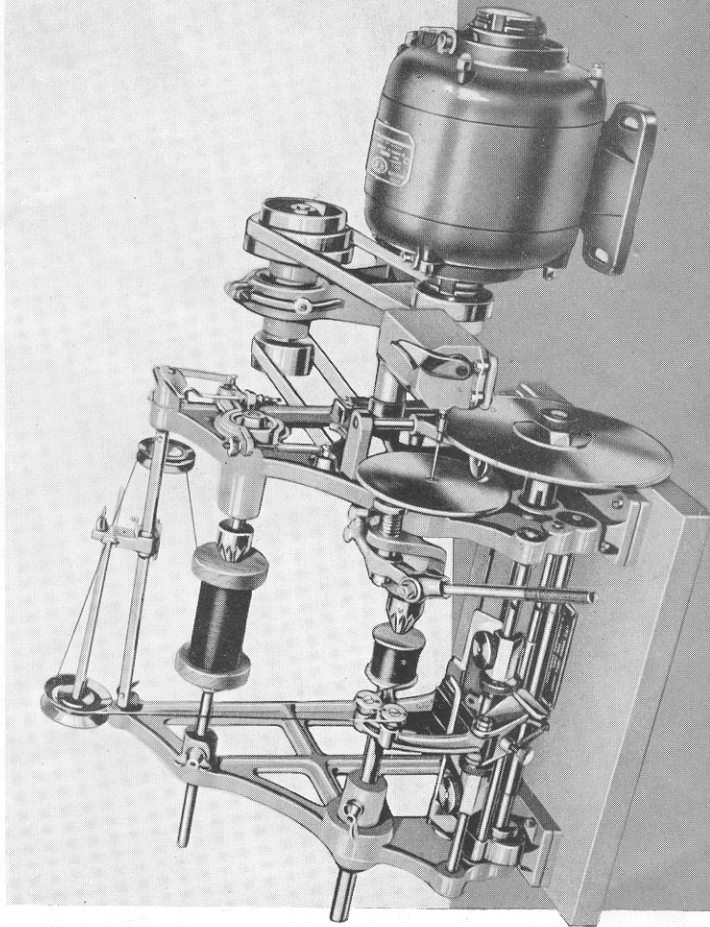


No. 3 AUTOMATIC COIL WINDER

This machine is intended for the winding of all types of layer wound coils and random wound coils up to 5" (127 mm.) long and 4 1/4" (108 mm.) diameter or diagonal. Wires from 0.002" (0.05 mm.) to 0.02" (0.5 mm.) can be wound and there are twelve headstock spindle speeds varying between 650 and 3,900 r.p.m.

Bench Space: 24" x 26" (610 mm. x 660 mm.)

Height: 17.5" (445 mm.)

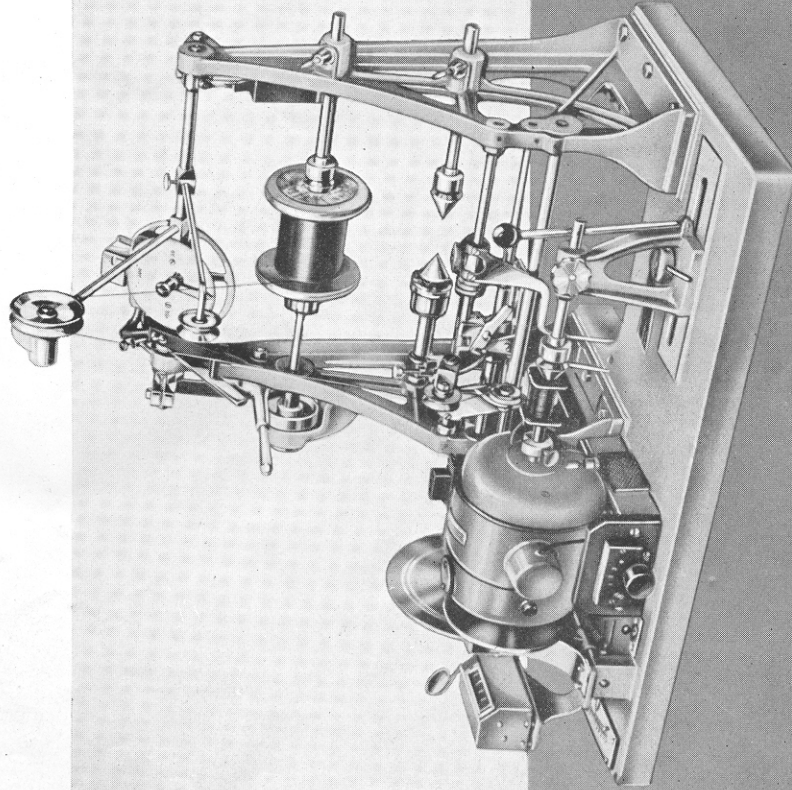


Macadie

S. C. AUTOMATIC COIL WINDER

This is a completely self-contained, power-driven winding machine for high speed winding. It is powered by a $\frac{1}{8}$ h.p. motor and winding speeds up to 4,000 r.p.m. can be obtained. It will handle coils up to 5" (127 mm.) long and 5" (127 mm.) diameter or diagonal. The machine is suitable for the winding of all types of coils, with or without paper insertion by hand. In addition to the normal revolution counter a device is incorporated which will automatically measure the length of wire being wound. Wires between 0.002" (0.05 mm.) and 0.018" (0.45 mm.) can be employed.

*Bench Space: 24" × 13" (610 mm. × 330 mm.)
Height: 22" (559 mm.)*

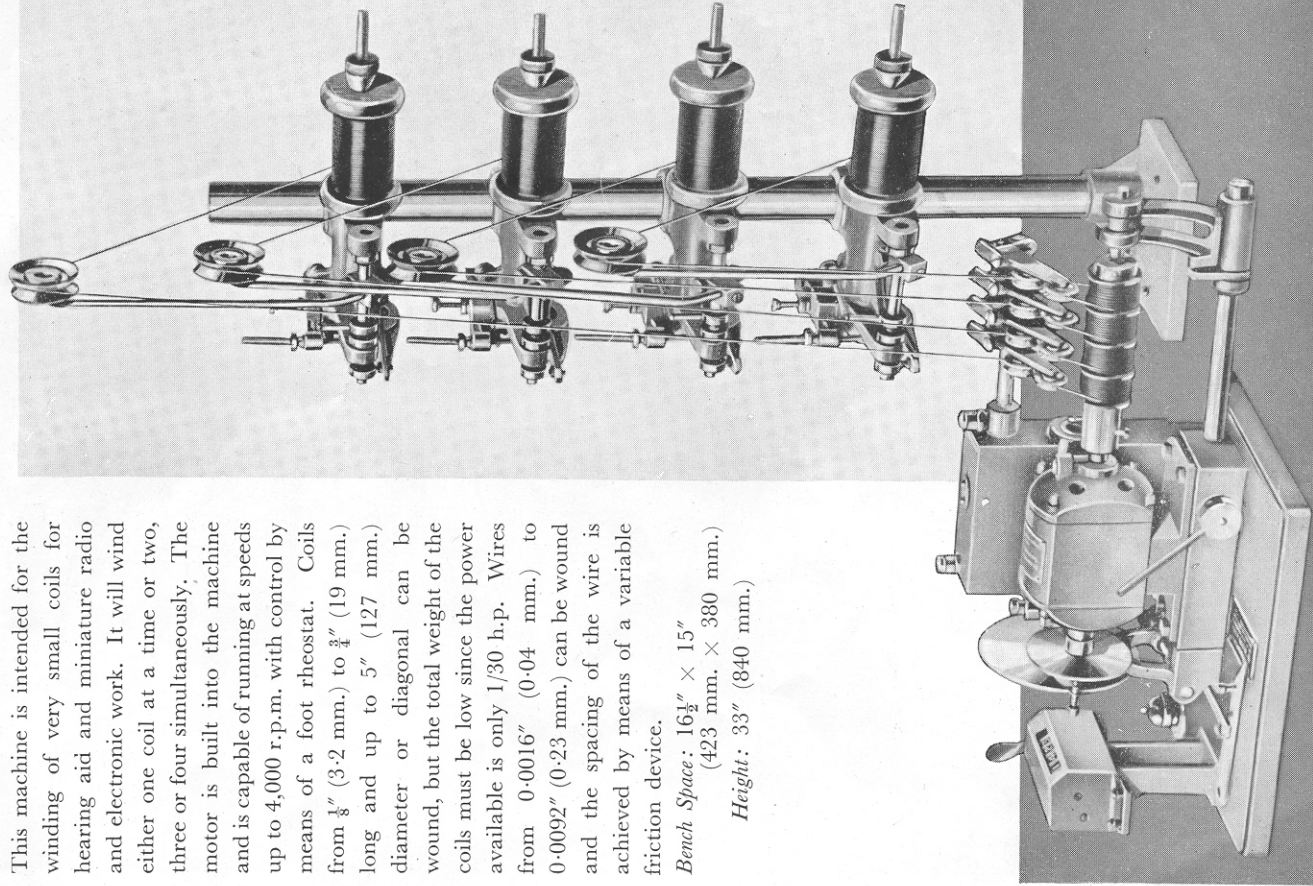


Douglas

SMALL MULTI-WINDING MACHINE

This machine is intended for the winding of very small coils for hearing aid and miniature radio and electronic work. It will wind either one coil at a time or two, three or four simultaneously. The motor is built into the machine and is capable of running at speeds up to 4,000 r.p.m. with control by means of a foot rheostat. Coils from $\frac{1}{8}$ " (3.2 mm.) to $\frac{3}{4}$ " (19 mm.) long and up to 5" (127 mm.) diameter or diagonal can be wound, but the total weight of the coils must be low since the power available is only 1/30 h.p. Wires from 0.0016" (0.04 mm.) to 0.0092" (0.23 mm.) can be wound and the spacing of the wire is achieved by means of a variable friction device.

*Bench Space: 16 $\frac{1}{2}$ " × 15"
(423 mm. × 380 mm.)
Height: 33" (840 mm.)*



Douglas

LARGE MULTI-WINDING MACHINE

This machine is designed for the high-speed production of large quantities of coils with or without paper interleaving. Round, square or rectangular coils from $\frac{1}{2}$ " (13 mm.) to 6" (152 mm.) in length and up to $4\frac{1}{2}$ " (114 mm.) diameter or diagonal can be wound and provision is made for any number between two and twelve coils to be wound at one time. The number of coils of any particular type which can be wound depends upon their overall length since the width of the paper employed on the machine is $15\frac{1}{2}$ " (395 mm.).

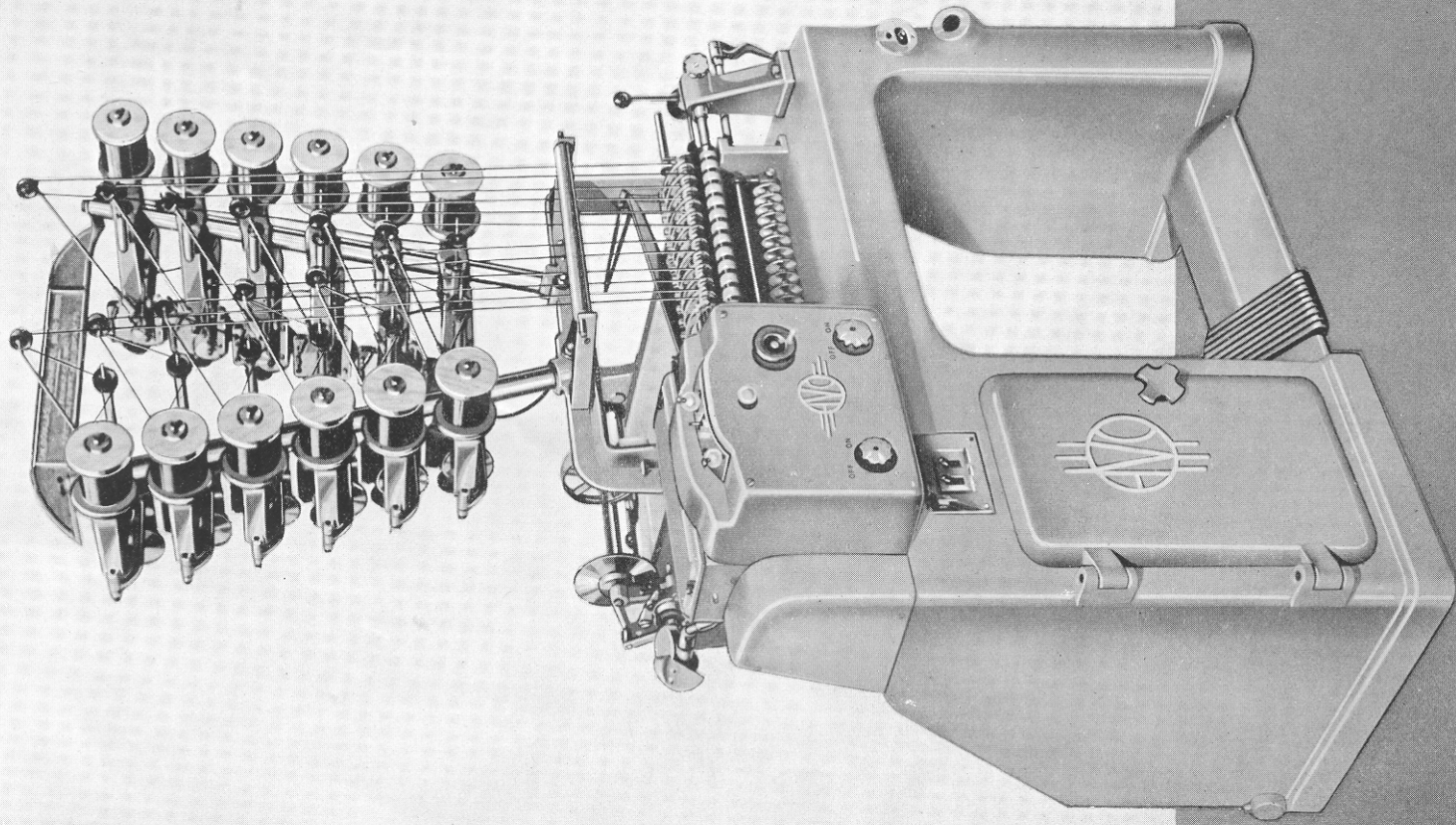
Two types of machine are available, one with a rapid-change gear box where the speed of traverse can be easily set by means of three levers after reference to a chart. This type of machine will handle wires from 0.002" (0.05 mm.) to 0.0124" (0.30 mm.). The other type of machine has a gear box with loose change wheels which permit the winding of wires, as above, with the thicker limit extended to 0.018" (0.46 mm.).

The machine is fitted with a variable speed motor which will allow for winding at headstock speeds up to 2,000 r.p.m. and also give the necessary slow start which is essential for multi-winding.

The machine is equipped with devices to enable it to stop when a given number of turns have been wound or when a supply reel of wire is exhausted or any one wire breaks.

The paper inserting attachment is of an advanced design and ensures that a constant overlap is maintained throughout the winding of the coils. The coils can be parted on the machine, thus saving time.

Floor Space: 45" × 19" (1,143 mm. × 483 mm.)
Height: 80" (2,032 mm.)



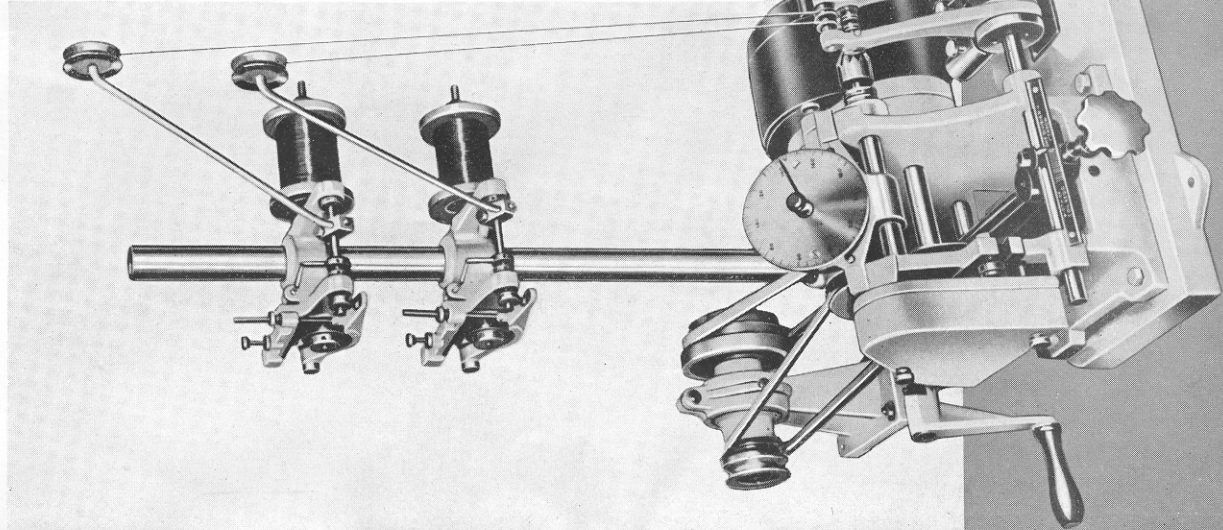
Douglas

WAVE WINDING MACHINE

This machine is capable of winding all types of wave wound coils for the radio and electronic industries. It is of robust construction and can be operated by hand or driven by a $\frac{1}{4}$ h.p. motor. Coils from $\frac{3}{8}$ " (2.4 mm.) to $1\frac{3}{8}$ " (45 mm.) wide and from $\frac{1}{8}$ " (3.2 mm.) to 4" (102 mm.) diameter can be wound. Provision is made for the winding of coils with either quadruple, triple, double, single, half, third or quarter wave and wires from 0.036" (0.90 mm.) to 0.0024" (0.06 mm.) can be used. Litz wires with a cross-sectional area within the range given for the single strand wires can also be used. With the standard machine two coils can be wound at one time, although this number can be increased in certain circumstances.

Bench Space: 25" × 25"
(635 mm. × 635 mm.)

Height: 33" (840 mm.)



Douglas

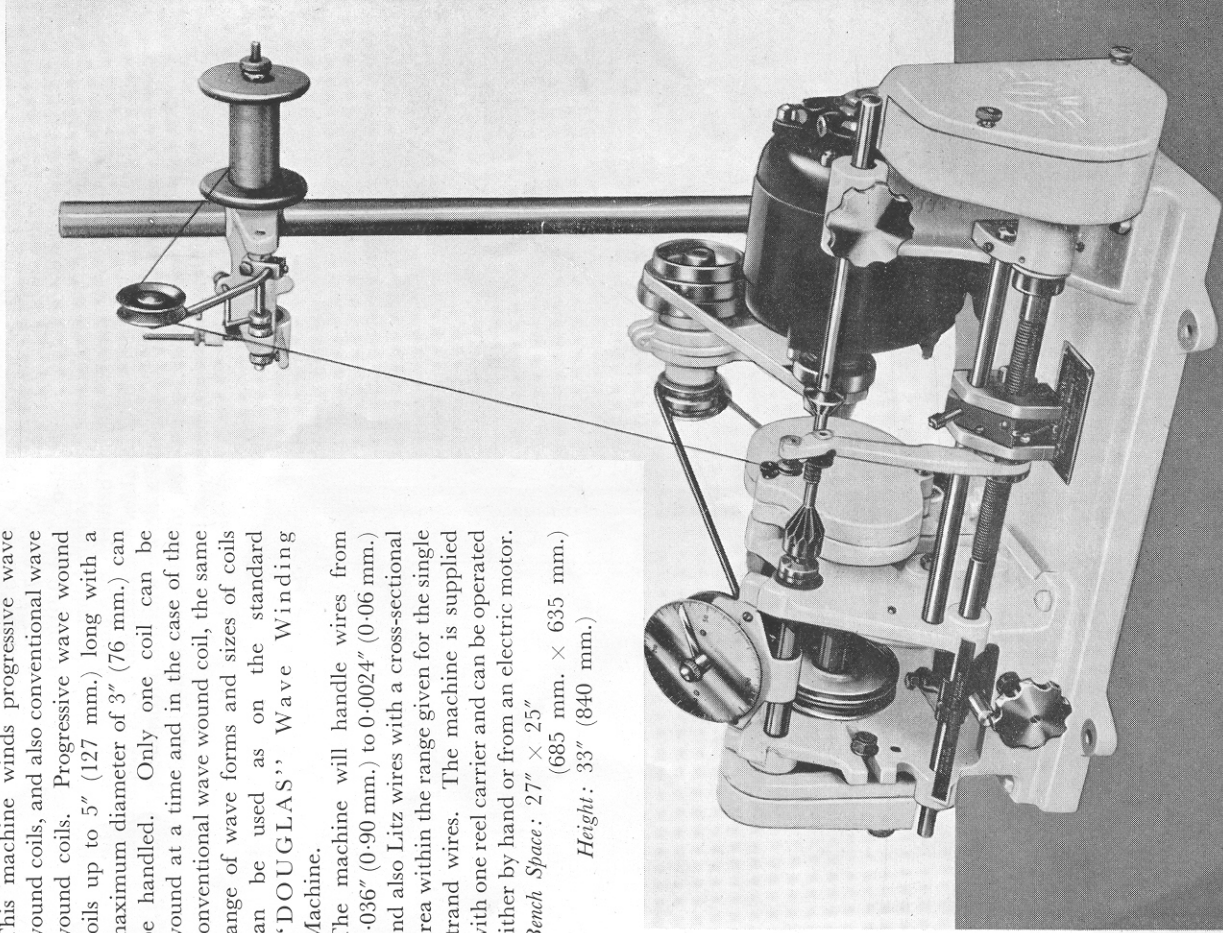
PROGRESSIVE WAVE WINDING MACHINE

This machine winds progressive wave wound coils, and also conventional wave wound coils. Progressive wave wound coils up to 5" (127 mm.) long with a maximum diameter of 3" (76 mm.) can be handled. Only one coil can be wound at a time and in the case of the conventional wave wound coil, the same range of wave forms and sizes of coils can be used as on the standard "DOUGLAS" Wave Winding Machine.

The machine will handle wires from 0.036" (0.90 mm.) to 0.0024" (0.06 mm.) and also Litz wires with a cross-sectional area within the range given for the single strand wires. The machine is supplied with one reel carrier and can be operated either by hand or from an electric motor.

Bench Space: 27" × 25"
(685 mm. × 635 mm.)

Height: 33" (840 mm.)

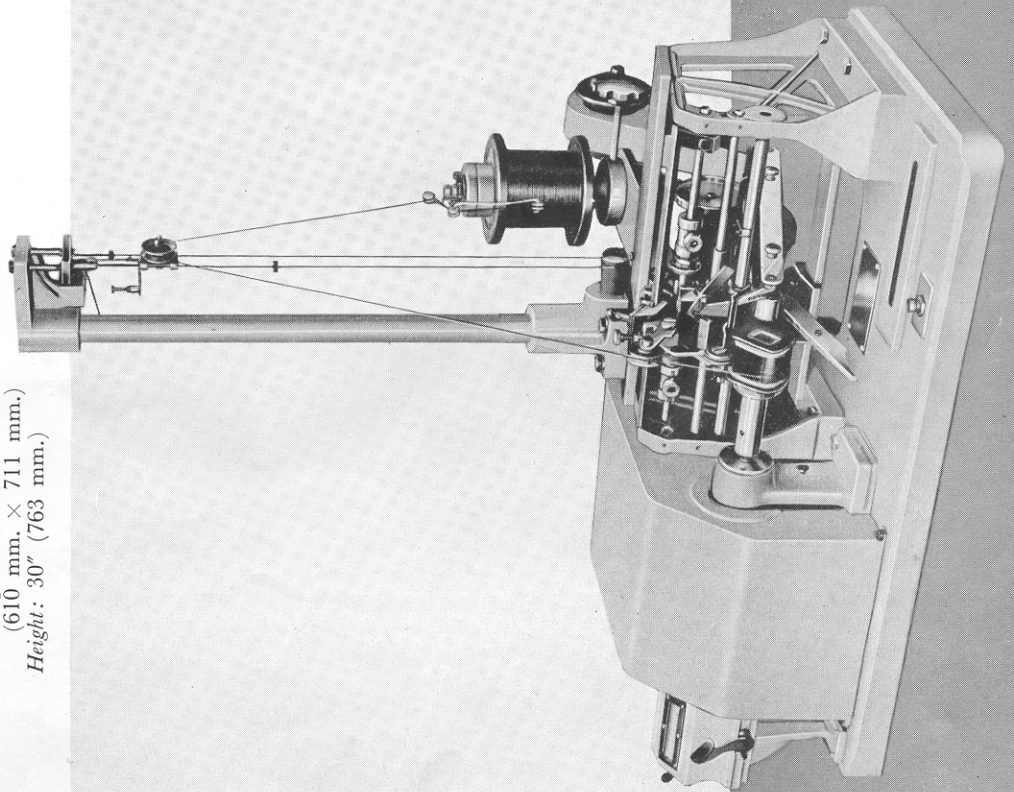


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No. 15 FULLY AUTOMATIC COIL WINDER

This is a machine fitted with a fully automatic paper inserting attachment for winding coils up to 2.5" (64 mm.) diameter or diagonal and from .75" (19 mm.) to 2.75" (70 mm.) wide. Wires between 0.002" (0.05 mm.) and 0.018" (0.45 mm.) can be handled. The machine is foot operated through a clutch and can be run at five speeds varying between 625 and 2,500 r.p.m. The pre-set revolution counter enables the machine to be stopped at a given number of turns, and a device which is incorporated with the flyer reel carrier arrests the machine when the supply reel is exhausted or the wire breaks.

Bench Space: 24" × 28"
(610 mm. × 711 mm.)
Height: 30" (763 mm.)

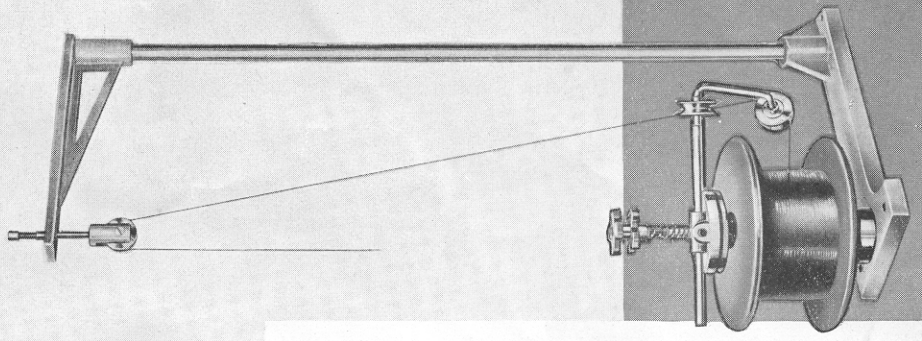


Douglas

UNIVERSAL REEL CARRIER

This device is intended for use with fine wires or when coils of an irregular shape are being wound. It will handle wires from 0.0012" (0.025 mm.) to 0.032" (0.80 mm.) and a chart is provided to enable the user to set the graduated dial to such a position that the correct winding tension is obtained. The maximum size of reel which can be accommodated is 4" (101 mm.) diameter, since the weight of the reel has an effect upon the tension obtained.

Bench Space: 10" × 13" (255 mm. × 330 mm.)
Height: 34" (865 mm.)



FLYER DRUM CARRIER

This carrier is intended for use with the heavier gauges of wire which are normally supplied on drums. The drum is not rotated but is held firm and the wire is taken off by means of a rotating flyer, thus obviating undue stress on the wire which would be present if the wire were pulled from a rotating drum. It will handle wires from 0.08" (2 mm.) to 0.0124" (0.3 mm.) on drums up to 13" diameter (330 mm.) and 7" wide (178 mm.). The minimum bore of the drum is $\frac{3}{4}$ " (19 mm.).

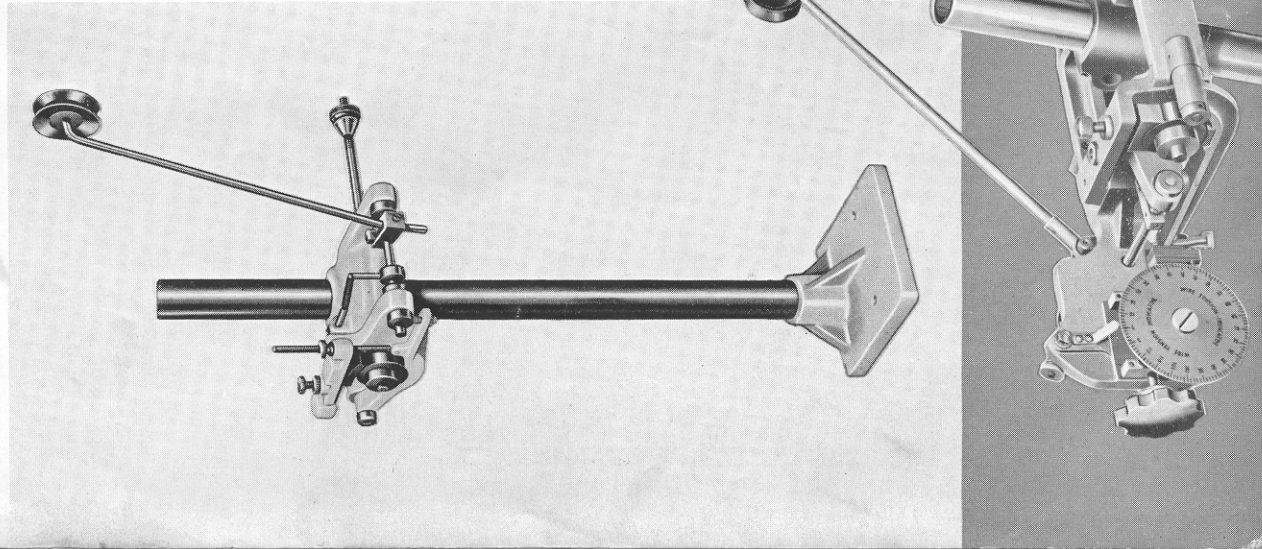
Floor Space: 23" × 13"
(585 mm. × 330 mm.)

Height: 47" (1,195 mm.)

Douglas

STANDARD REEL CARRIER

This reel carrier will handle wires from 0.002" (0.05 mm.) to 0.0148" (0.38 mm.) on reels up to 4½" (115 mm.) in diameter. Provision is made for applying the correct tension to any size of wire in this range and an overrun brake is provided. The spindle which holds the reel is fitted with a quick release type of nut.



GENERAL PURPOSE REEL CARRIER

This type of reel carrier may be supplied with the spindle carrying the reel on the left-hand side of the support column or, alternatively, on the right-hand side of the support column. It will handle wires from 0.002" (0.05 mm.) to 0.048" (1.2 mm.) providing the outside diameter of the reel does not exceed 6" (150 mm.) or its weight be more than 10 lbs. (4.5 kilos). A chart is supplied to enable the user to set the graduated dial to such a position that the correct winding tension is obtained.

Douglas

Douglas

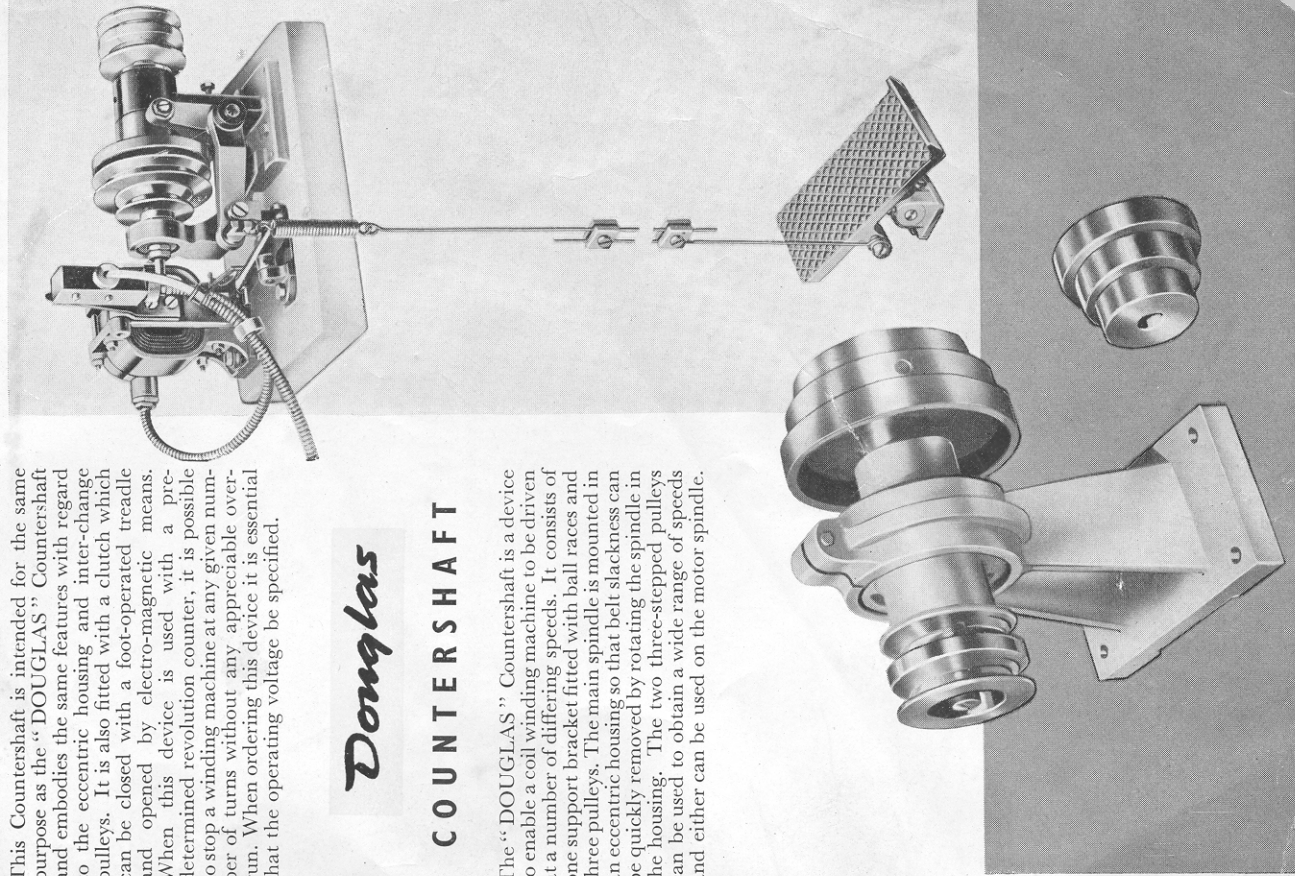
ELECTROMAGNETIC COUNTERSHAFT

This Countershaft is intended for the same purpose as the "DOUGLAS" Countershaft and embodies the same features with regard to the eccentric housing and inter-change pulleys. It is also fitted with a clutch which can be closed with a foot-operated treadle and opened by electro-magnetic means. When this device is used with a pre-determined revolution counter, it is possible to stop a winding machine at any given number of turns without any appreciable overrun. When ordering this device it is essential that the operating voltage be specified.

Douglas

COUNTERSHAFT

The "DOUGLAS" Countershaft is a device to enable a coil winding machine to be driven at a number of differing speeds. It consists of one support bracket fitted with ball races and three pulleys. The main spindle is mounted in an eccentric housing so that belt slackness can be quickly removed by rotating the spindle in the housing. The two three-stepped pulleys can be used to obtain a wide range of speeds and either can be used on the motor spindle.



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