

**KELLOGG SWITCHBOARD AND SUPPLY COMPANY
CHICAGO, ILLINOIS**



**Kellogg Catalog 92
March 10, 1936
For Magneto Telephone Systems**

Produced in a pamphlet form and contained a listing of Kellogg's magneto products for the period. This scan version has omitted the outside plant, power plant and tool portions, as these were actually products produced by other companies and resold by Kellogg Supply. The date of this catalog has been assumed from the part number of "CAT. 92 10M 3-10-6 I.S.B." on the outside back cover. The year has been assumed because of the telephone types depicted fit the year 1936. Also Kellogg moved from West Adams Street location to a new facility on Cicero Ave. in 1937 and a hand written notation of the new address is on the covers of this copy.

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**SWITCHBOARDS
TELEPHONES
APPARATUS
SUPPLIES**



*New York
6150 South Branch Ave
Chicago 38, Ill*

CATALOG NUMBER 92

KELLOGG

CHICAGO

Customer Information

Guarantee

We guarantee goods of our own manufacture against manufacturing defects for a period of one year from date of invoice when such goods prove defective while being used for the purpose for which they were manufactured. No goods should be returned and no credit will be allowed unless a return permit has been obtained before shipments.

All line supplies listed in this catalog carry the guarantees of their respective manufacturers. We guarantee these products to the extent that we will replace defective products or their component parts after inspection by us or our suppliers, within 90 days from date of purchase.

It is our desire and intent to furnish first class materials at all times, and we insist on rigid manufacturing inspections by our suppliers.

Under this guarantee we will make replacement of defective products and parts only and will not be liable for any charges or costs incurred in the removal or replacement of the defective products or parts.

Terms

Our terms are 30 days net from date of invoice with the exception of a few items of construction material which carry a discount for cash within ten days from date of invoice. The Terms are clearly noted on acknowledgment of order. Purchasers unknown to us should have satisfactory bank or commercial references accompany their first order when it is desired to have same shipped on open account. A remittance with first order will avoid the delay incident to the necessary credit investigation. Goods may be forwarded by freight with sight draft attached to bill of lading or by express collect on delivery, if a remittance, sufficient to pay express charges both ways, accompanies the order.

Orders

So that we may give you better service, we suggest that order blanks be used. We will be glad to furnish you a supply. In case blanks are not available, it is better to write the items on a sheet separate from your letter; being sure that your name is written on the sheet. The catalog numbers of items should always be given wherever possible.

In ordering line supplies, give catalog numbers of the items required together with a brief description. Shipments on orders incorrectly written or lacking numbers and description may be delayed until full information is received. While every effort is made to insure correct shipments, we cannot be responsible for errors in the transmission of orders by telephone and telegraph, or for duplicate shipments made on confirming orders which are not so marked. We suggest that confirming orders be mailed promptly, for this frequently permits us to correct errors in transmission before the shipment is made.

Prices

The prices quoted herein do not include any Excise, Sales, Use, or similar taxes or duties. All such taxes and duties will be added on invoices, where applicable, as additional charges.

Prices are subject to change without notice.

All unpriced orders will be invoiced at lowest prevailing prices for the quantity ordered.

On priced orders which cannot be filled at prices specified, due to change, we will invoice at lowest prevailing prices.

On all apparatus of Kellogg manufacture, a service charge is added to the F. O. B. Chicago prices when delivered from Kellogg branch warehouses. This charge partly covers the cost of transportation to the warehouse, the cost of additional handling and the cost of carrying in stock for immediate delivery. There is no extra charge on shipments

from Chicago. A stated flat service charge is made on telephones but the service charge on other Kellogg manufactured items is as follows:

Kansas City (Mo.) stock.....2% San Francisco stock.....5%

Changes and Cancellations

Owing to the special stock conditions, etc., changes and cancellations of orders once entered cannot be made without our consent and on terms that will make good all loss and expenses incurred in preparing the order for shipment.

Shipments

Shipments are made according to directions received with orders. In their absence we will use our best judgment in making selections of routes. State whether we shall ship by freight, express or parcel post. It is our endeavor to ship standard goods immediately upon receipt of orders, and customers will greatly assist us in making prompt shipments if they will order by catalog number to save delay. Also please mention number of the catalog.

Claims for Breakage and Non-Delivery

Our goods are carefully packed by experienced packers, and each article is checked three times before reaching the packing case.

Receipts from the transportation company clearly specify that shipments were received in good condition and we, therefore, do not hold ourselves responsible for any loss or damage sustained in transit.

Claims for non-delivery, etc., should be made promptly against the transportation company.

If we are notified of such claims, we will gladly lend our assistance to secure a satisfactory adjustment for the customer.

On parcel post shipments claims are to be made to us as we insure the material and make adjustments.

Claims

Claims for shortage should be made promptly upon receipt of goods and should be accompanied by the packer's ticket which is placed in each case, or freight receipt with agent's notation covering shortage. No claims will be entertained five days after receipt of shipment.

Claims for clerical errors should be accompanied by a reference to our invoice number.

Returning Goods

No goods should be returned for credit or exchange without receiving a written authorization from us.

Long experience has shown that proper understanding of each case saves transportation expense, delays and misunderstandings and avoids returning satisfactory goods because of mistaken impression, etc.

Name and address of shipper should be marked plainly on all packages returned for credit, exchange or repairs, and a proper notice of shipment should be sent to the Kellogg Company. We stand ready at all times to rectify mistakes we make, and without cost to our customers, but under no circumstances should goods be returned without first consulting us for shipping instructions.

No credit for labor expense involved in the repair of defective or damaged goods will be allowed. If goods are defective, the measure of damage is the price of the defective goods only.

Marine and Parcel Post Insurance

Unless otherwise directed, we reserve the right to insure against non-delivery all shipments made by steamer or parcel post, for which a nominal charge will be made to cover cost of this service.

Kellogg

1936

KELLOGG

SWITCHBOARDS

TELEPHONES

APPARATUS

SUPPLIES



CATALOG NUMBER 92

KELLOGG

1066 West Adams Street

**Switchboard
and Supply**

COMPANY

Chicago, Illinois

WAREHOUSES: CHICAGO *6650 So. Cicero Ave. Chicago 38, Ill.* KANSAS CITY

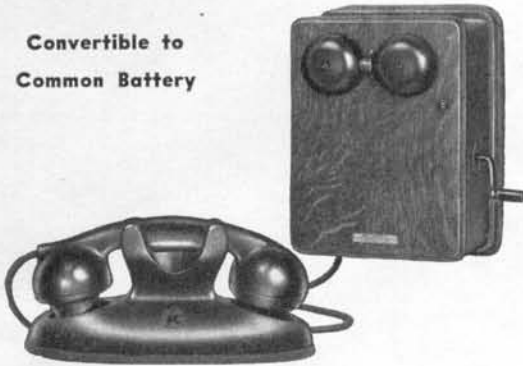
SAN FRANCISCO

MAGNETO MASTERPHONES

No. 700-A

Desk **Kellogg Masterphone**

Convertible to
Common Battery



Possessing all of the latest achievements in modern telephone instruments, the Masterphone meets every requirement for good transmission and reception, low maintenance costs, durability and beauty.

The Kellogg No. 700-A Masterphone consists of a molded Kellite handset and cradle base. The case with which transmitter and receiver units can be changed, and hookswitch adjustments made, insure good instrument performance at all times.

All Masterphones utilize the same all-Bakelite handpiece and come equipped with the Kellogg NON-POSITIONAL transmitter. When used with any standard magneto bell box arranged for the conventional three-conductor circuit, it forms a complete desk set telephone. However, the Masterphone can at any time be changed to full common battery service with the TRIAD anti-sidetone circuit by simply changing a cord.

Standard Desk Set Boxes

Code No. F2328 3 Bar Set 1000 OHM Ringer

The No. F2328 desk set box is recommended for business and residence service. It can be furnished with a biased ringer for 4-party negative and positive pulsating ringer when desired.

Code No. F2326 Harmonic 3 Bar Set 1000 OHM Ringer
30-42-54-66 Cycles

The No. F2326 desk set box is identical to the No. F2328 except equipped for 4-party harmonic ringing systems. In ordering, please specify number of cycles on which ringer is to operate.

Code No. F2361 Heavy Duty 5 Bar Set 1600 OHM Ringer

The No. F2361 desk set box is recommended for use on long heavily loaded rural lines. It can be furnished with a 2500-ohm ringer instead of 1600-ohm when specified.

Code No. F2370 Heavy Duty 5 Bar Set 1600 OHM Ringer
With Condenser

The No. F2370 desk set box is similar to the No. F2361 except equipped with a 1/2-MP. condenser in the receiver circuit.

This condenser keeps ringing current from passing through the receiver when it happens to be off the hook. On long farm lines equipped with these phones, it is possible to "ring through" even though a number of receivers are down. If desired, a 2500-ohm ringer can be furnished instead of 1600-ohm.

Code No. F2374 Heavy Duty 5 Bar Set 1600 OHM Ringer
With Condenser and Secret Calling Button

The No. F2374 desk set box is similar to No. F2370 except provided with a secret calling feature, consisting of a push button and a special generator capable of delivering two kinds of ringing current, pulsating and alternating. When the button is normal the generator delivers alternating current to the line ringing all of the bells and throwing the "drop" at Central. By pressing the button while turning the crank, pulsating current is delivered which throws the "drop" at central, but does not ring the other bells on the line. This telephone can be used on either a grounded or metallic line regardless of the other telephones on the line and no change is required at the central office. If desired, a 2500-ohm ringer can be furnished instead of a 1600-ohm ringer.

Code No. F2376 Heavy Duty 5 Bar Set 1600 OHM Ringer
With Condenser and Grounding Key

The No. F2376 desk set box is arranged for calling central secretly by ringing over one side of the line and through the "drop" to ground. It can only be used on two-wire metallic lines which have all the telephones equipped with push buttons and with the "drop" at central disconnected from one side of the line and wired to ground. If desired, a 2500-ohm ringer can be furnished instead of 1600-ohm.

No. 3809M
Wall

Kellogg Masterphone



The Kellogg No. 3809M wall Masterphone consists of a standard Kellogg oak cabinet and a molded Kellite handset suspended on a special Masterphone hookswitch. The F27C handset is the same as used with the No. 700-A Masterphone. This wall Masterphone is carried in stock equipped as listed below. Battery-saver is not supplied with these sets unless specified. All Masterphones have the NON-POSITIONAL transmitter.

Code No. 3809M 3 Bar Set 1000 OHM Ringer

This set can be furnished with a biased ringer for 4-party negative and positive pulsating ringer when desired.

Code No. 3812M Heavy Duty 5 Bar Set 1600 OHM Ringer
This set can be furnished with a 2500-ohm ringer instead of a 1600-ohm when specified.

Code No. 3816M Heavy Duty 5 Bar Set 1600 OHM Ringer
With Condenser

The condenser is in the receiver circuit and functions similar to F2370 desk set box. Can be furnished with a 2500-ohm ringer instead of 1600-ohm when specified.

Code No. 3820M Heavy Duty 5 Bar Set 1600 OHM Ringer
With Condenser and Secret Calling Button

The special generator furnished delivers both pulsating and alternating current. This set can be used on either grounded or metallic lines regardless of other telephones on the line and without necessitating changes at the central office.

Code No. 3824M Heavy Duty 5 Bar Set 1600 OHM Ringer
With Condenser and Grounding Key

Grounding key is for calling central secretly. This telephone cannot be used on grounded lines and is only suitable for metallic lines on which all sets are of this type and with one side of the drop at central office wired to ground.

Kellogg Masterphone Conversion Kits

Kit No. 7

Wall magneto telephones in good condition are easily changed into modern wall Masterphone handset instruments at a small cost with these new conversion kits. Kit No. 7 consists of (1) a four-conductor Masterphone handset with a cord made to fit the present receiver and transmitter binding posts in wall telephones, (2) a new handset lever to replace present Kellogg short lever switchhook, (3) and a black enameled plate to cover the opening left by the removal of the transmitter arm. No rewiring or soldering necessary and a screw driver is the only tool required.

Kit No. 8

Kit No. 8 is intended for use with telephones not equipped with the Kellogg self-contained short lever switchhook, and contains a complete new switchhook replacement. Similar to Kit No. 7 except that the old switchhook and spring assembly is removed from the cabinet and the complete new assembly installed. The large mounting plate covers any opening left after removal of the old switchhook.

40-C Four Conductor Handset

No. 40-C is similar to the regular Masterphone handset but has separate conductors for the transmitter and receiver, and a 4 conductor cord with ends trimmed to fit the binding posts in Kellogg wall telephones. This set is also furnished in the kit shown above. Shipping weight 1 3/4 lbs.



Converted Telephone



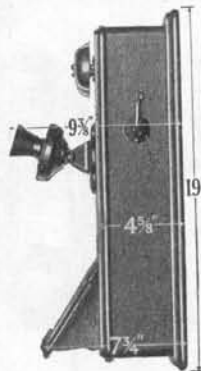
Kellogg

MAGNETO TELEPHONES



Closed View

Shipping Weight
1 telephone to a box
3-Bar Gen. Type,
26 lbs.
5-Bar Gen. Type,
29 lbs.



Side View



Open View

Compact Type-Wall Telephone

Code F 2808 3-Bar Set—1000 OHM Biased Ringer
Same as the F 2809 except equipped with a biased ringer for four-party negative and positive selective ringing system.

Code F 2809 3-Bar Set—1000 OHM Ringer
This telephone is designed especially for lines in town having one or more telephones and for lightly loaded farm lines. It is equipped with the same long distance transmitter and sensitive Kellite shell receiver used on all Kellogg telephones. The ringer is of the non-adjustable, non-sticking type. The powerful generator is of the 3-bar type with a current output large enough for all service requirements except long and heavily loaded farm lines. This style of telephone can also be furnished with higher resistance ringers and with condenser, if required. No battery saver is furnished unless specified.

Code F 2812 Heavy Duty 5-Bar Set—1600 OHM Ringer
This instrument is equipped with a powerful five-bar generator capable of delivering the necessary voltage and current for the longest and most heavily loaded farm lines. The ringer is of the famous 1600 ohm sensitive non-sticking type. Transmitter, receiver and induction coil are the same high standard used in all Kellogg telephones and give equally efficient transmission on long distance as well as local connections. A battery saver is furnished without extra charge.

Code F 2816 Heavy Duty 5-Bar Set
1600 OHM Ringer with Condenser

This telephone is the same as the No. F 2812 described before with the addition of a 1/2 M.F. condenser in the receiving circuit. The duty of this condenser is to keep ringing current from passing through the receiver when the receiver happens to be off the hook. On long farm lines equipped with a number of telephones, it is possible to ring through even though a number of receivers are down, providing they are equipped with these condensers. A battery saver is furnished without extra charge.

Code F 2859 Heavy Duty 5-Bar Set—2500 OHM Ringer
Same as F 2812 except equipped with a 2500 ohm ringer for lines already equipped with this resistance.

Code F 2880 Heavy Duty 5-Bar Set
2500 OHM Ringer with Condenser
Same as F 2816 except equipped with a 2500 ohm ringer. Same as F 2859 with condenser.

Code F 2820 Heavy Duty 5-Bar Set
1600 OHM Ringer with Condenser and Secret Calling Button
This instrument has the same equipment as No. F 2816 but is furnished with a push button and a special generator capable of delivering two kinds of ringing current, pulsating and alternating. When the button is not pressed the generator delivers alternating current to the line which rings all of the bells and throws the drop at Central. By holding the button down while turning the crank, pulsating current is delivered which throws the drop at Central, but does not ring the other bells on the line. This telephone can be used on either a grounded or metallic line regardless of the other telephones on the line and no change is required at the Central office. A battery saver is furnished without extra charge.

Code F 2824 Heavy Duty 5-Bar Set
1600 OHM Ringer with Condenser and Grounding Key

This telephone is arranged for calling Central secretly by ringing over one side of the line and through the drop to ground. It can only be used on two wire metallic lines which have all telephones equipped with push buttons and with the drop disconnected from one side of the line and wired to ground. This telephone is not recommended except for lines that are already equipped with instruments of this same type. A battery saver is furnished without extra charge.

Code F 2860 Heavy Duty 5-Bar Set
2500 OHM Ringer with Condenser and Secret Calling Button
Same as F 2820 except equipped with a 2500 ohm ringer.

Large Cabinet Telephones

Three Dry Cells
Code 4886 Heavy Duty 5-Bar Set
2500 OHM Ringer with Condenser

This type of telephone is especially popular with the U. S. Forest Service, pipe line companies and railroads where the extreme transmission requirements make the use of three dry cells desirable. These telephones are otherwise the same as No. F2859 and No. F2880.
Height 23 inches; width 9 inches; depth 10 inches overall. Shipping weight 5-bar 29 lbs. 6-bar 31 lbs.

Code 4885 Heavy Duty 5-Bar Set
2500 OHM Ringer
Same as 4886 except that condenser is omitted.

Code 4884 Heavy Duty 6-Bar Set
2500 OHM Ringer
Same as 4885 except with 6-bar generator and condenser is omitted.

Residence Type-Wall Telephone



Backboard Dimensions
7 1/2" x 10"
Shipping Weight,
20 lbs.

Code F 1809 3-Bar Set
1000 OHM Ringer

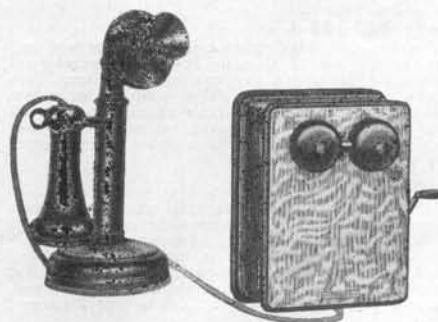
This instrument is exactly the same as code No. F 2809 except for the cabinet and is equipped with a 3-bar generator and 1000 ohm ringer. Battery savers are not furnished with this instrument, unless specified. This is an excellent set where batteries can be located in the basement or other out of the way place and where wall space is at a premium.

Heavy Duty 5-Bar Set
This style can be furnished in other combinations of ringer resistance and generators on special order. For rural telephones, however, the compact sets containing a battery compartment are usually preferred.

Kellogg

MAGNETO TELEPHONES AND TEST SETS

Desk Sets



Shipping Weights
Stand only, 4 lbs.
3-Bar Desk Set Box,
only 14 lbs.
5-Bar Desk Set Box,
only 17 lbs.

Dimensions
Length, 10 1/4 inches
Width, 8 inches
Height, 6 inches

Code F 9 3-Bar Set—1000 OHM Ringer

This set consists of a No. F 118 desk stand in black enamel finish equipped with three conductor brown mercerized cord and a No. F 2328 quarter-sawn oak desk set box containing a 3-bar generator, 1000 ohm ringer and induction coil. This set has been standard for years and is recommended for business and residence service except for heavily loaded rural lines. This set can be furnished with biased ringer for four-party negative and positive pulsating ringing when desired.

Code F 7 Harmonic 3-Bar Set—1000 OHM Ringer 30-42-54-66 Cycles

This set consists of a No. F 118 desk stand and No. F 2326 desk set box. It has the same equipment as code F 9 except for the ringer which is for four-party harmonic ringing systems. In ordering specify number of cycles on which ringers are to operate.

Code F 12 Heavy Duty 5-Bar Set—1600 OHM Ringer

This set consists of an F 118 black enameled desk stand and F 2361 desk set box equipped with a powerful 5-bar generator, 1600 ohm non-adjustable ringer and induction coil. It is identical in equipment with the No. F 2812 wall set and will give splendid service on long and heavily loaded rural lines. It can be furnished with a 2500 ohm ringer instead of 1600 ohm, when it is so ordered.

Code F 16 Heavy Duty 5-Bar Set 1600 OHM Ringer with Condenser

This set has the same equipment as code F 12 with the addition of a 1/2 M.F. condenser in the receiver circuit. The duty of this condenser is to keep ringing current from passing through the receiver when the receiver happens to be off the hook. On long farm lines equipped with a number of telephones, it is possible to ring through even though a number of receivers are down, providing they are equipped with these condensers. If desired, a 2500 ohm ringer can be furnished instead of 1600 ohm.

Code F 20 Heavy Duty 5-Bar Set 1600 OHM Ringer with Condenser and Secret Calling Button

This set consists of an F 118 desk stand and F 2374 desk set box. It is the same as F 16 with the exception of the secret calling feature which consists of a push button and a special generator capable of delivering two kinds of ringing current, pulsating and alternating. When the button is not pressed the generator delivers alternating current to the line which rings all of the bells and throws the drop at Central. By holding the button down while turning the crank, pulsating current is delivered which throws the drop at Central but does not ring the other bells on the line. This telephone can be used on either a grounded or metallic line regardless of the other telephones on the line and no change is required at the Central office. If desired, a 2500 ohm ringer can be furnished instead of 1600 ohm.

Code F 24 Heavy Duty 5-Bar Set 1600 OHM Ringer with Condenser and Grounding Key

This telephone is arranged for calling Central secretly by ringing over one side of the line and through the drop to ground. It can only be used on two wire metallic lines which have all telephones equipped with push buttons and with the drop disconnected from one side of the line and wired to ground. This telephone is not recommended except for lines already equipped with instruments of this same type. If desired, a 2500 ohm ringer can be furnished instead of 1600 ohm.

Kellogg Outdoor Telephone

Code No. 4883

The Kellogg Outdoor Telephone, type 4883, is one of the finest units of its kind. It contains all the desirable features necessary to meet every communication requirement. It is weatherproof, adaptable to any combination of common battery or magneto equipment, reasonable in weight, designed with simplicity, and all parts are accessible. As outdoor telephones are often used on long, heavily loaded lines where transmission and ringing efficiency are all important, provisions have been made to permit any circuit arrangement necessary to assure the highest quality transmission and reception, and efficient ringing.

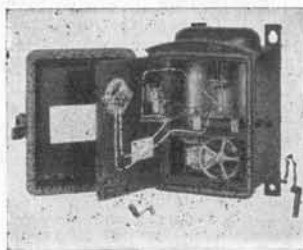
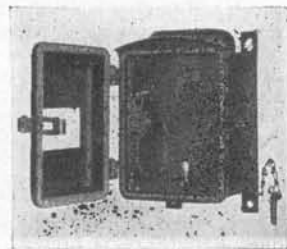
The black finish cast iron housing is weatherproof, but ventilated to prevent condensation of moisture or "sweating." Simplified wiring, with rubber insulated wire, is used throughout. No cabling required.

The door of the iron housing is securely fastened by a locking pin which is attached to the box by a chain. Slotted screw holes in the mounting lugs permit the setting of the upper lag screws before the housing is hung in place. The entire telephone may be handled and installed by one man.

The Kellogg 4883 type outdoor telephone is equipped with a 32-L low-resistance, local battery type transmitter for operation with either two or three standard No. 6 dry cells. The receiver is the Kellogg 81-A high efficiency watchcase type, with cobalt steel magnets. This receiver, though small and compact, is an ideal unit because its size does not sacrifice the quality of reception.

Over all height (not including mounting lugs) of 14 1/2 inches, width over clasps and hinges 11 1/2 inches, over all depth 10 1/4 inches. Horizontal mounting centers 7 1/2 inches; vertical mounting centers 14 1/4 inches.

Weight complete less dry batteries, with 5-bar generator, 69 lbs., with 6-bar generator, 72 lbs.



Portable Telephones

Code No. 3001

The Kellogg No. 3001 Portable Magneto Telephone is one of the finest instruments made for portable use. The ruggedness and simplicity of this unit keeps maintenance at a minimum. It combines utmost efficiency with compactness and incorporates every desirable feature. It weighs only 19 pounds.

It will talk and ring over the most heavily loaded and longest line. Loud, clear reception and the finest transmission are assured. Equipped with a metal handset which contains both the transmitter and receiver units. Current is supplied by a standard 3-cell flashlight battery, and is required only for the transmitter. A button in the handset cuts in the battery when talking.

This set is equipped with a Kellogg standard 2500 ohm ringer, a powerful Kellogg 5-bar generator, one-half microfarad condenser, and an accurately balanced induction coil. The generator crank folds out of the way so that there are no projections of any kind. It comes with a heavy, 54 inch adjustable cowhide strap for easy carrying. Connections to the line are made direct to two, heavy contact clips.

The cabinet of Eastern Birch is impregnated with Inwood, and finished with two coats of durable Spar varnish. Height, 10 1/4 inches; width, 10 inches; depth, 5 inches; shipping weight without battery, 29 lbs.

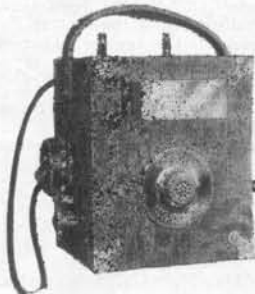


Test Set

Code 1016

This test set is a complete portable telephone. Is strongly built and will talk and ring over the longest and most heavily loaded line. It is equipped with a powerful 4-bar generator, 1600 ohm ringer, long distance transmitter, head receiver, induction coil, hookswitch and two No. 4 dry cells. The cabinet is oak heavily reinforced with metal corners. A good, sturdy, all around set for the Linemen.

Weight, not packed, 15 lbs. Height, 8". Width, 7". Depth, 8 3/4".



Kellogg

MAGNETO TELEPHONE PARTS

In ordering parts for telephones if there is any doubt as to the proper number it would be well to send in the code number of the telephone which will be found stamped in the woodwork. On Desk Telephones the box is numbered and the desk stand also bears a number stamped on the side of the switchhook. If no numbers are available send a sample of the parts wanted or give as complete a description as possible.

As new and better materials have become available and as the art of Telephony and Manufacture in general has progressed, Kellogg parts have been improved always with a view to furnishing better equipment to replace worn out parts as well as for the manufacture of new equipment. Therefore, it will sometimes be possible to order parts for old Kellogg Telephones which are stronger and better designed than the ones originally furnished with the instruments. Stampings of steel and brass have replaced many of the castings of the past; Kellite and Micarta replace hard rubber, composition and other of the older insulating materials. Better methods of insulating and treating coil windings have been developed.

It has been the aim of the Kellogg Company to so design the improved equipment that much of the new can be incorporated in the old at a substantial saving.

It sometimes happens that it is poor economy to try to prolong the life of telephone equipment past a certain point and good financial policy then indicates the purchase of modern up-to-date telephones. If there is any question the Kellogg Company will welcome the opportunity to be of service in helping to determine which course is best to follow.

Arms, Transmitter



No. 42 Transmitter Arm Over-all Length, 4 1/2"

Code No. 42

The No. 42 transmitter arm was formerly used on Kellogg compact wall telephones and can be used on a large variety of instruments. A handsomely finished, pressed steel arm with adjustable hinge. Net weight, 8 ounces.



Code No. 50 Length, 2 3/4"

Code No. 50

Code No. 50 transmitter arm used on standard magneto telephones with sloping writing shelf. A desirable arm also for hotel and residence telephones. Net weight, 7 ounces.

Bells, Extension

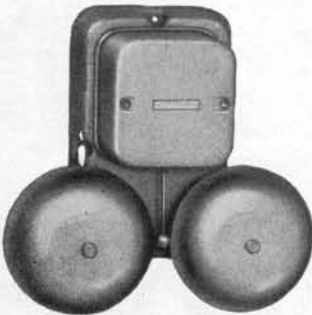


Oak Cabinet Extension Bell

The No. 37 type extension bell consists of a neat quarter-sawed oak box with ringer and two binding posts. No condensers furnished. Net weight, 3 lbs.

CODE No.	Resistance	REMARKS
37 SA	1000 Ohms	Straight line
37 SD	1600 Ohms	Straight line
37 SG	2500 Ohms	Straight line
37 BA	1000 Ohms	Biased
37 HB	Harmonic	30, 42, 54, 66
37 HA	Harmonic	33 1/2, 50, 66%, 16%

Loudringing Bell



Code No. 65-SA, 65-SD, 65-SG, 65-HB, 65-HA

The Kellogg Loudringing Weather-proof Extension Bell is especially designed for outdoor installations. It is also used extensively, however, for indoor purposes where a good loud ringing bell is required. The bells are furnished with either straight line or harmonic ringers. They operate perfectly under all climatic conditions. They are efficient and trouble-free.

The 6-inch steel gongs are cadmium plated. The housing consists of a heavy cast iron base with removable cast iron cover held by two screws. It has a weatherproof finish of heavy durable gray zinc paint.

Dimensions including gongs: width 13 inches, length 12 1/2 inches, depth 4 1/4 inches. Net weight 13 1/2 lbs.

Ringer	Remarks
1000 ohm	Straight Line
1600 ohm	Straight Line
2500 ohm	Straight Line
Harmonic	30, 42, 54, 66 cycles
Harmonic	33 1/2, 50, 66%, 16% cycles.

*Equipped with No. 12 condenser 1 M.F. capacity.

Coils, Induction

See Page 22

Code No. 108-A



No. 108A 4 1/2" Over All Heads, 1" Square

The No. 108A induction coil is an improved coil that replaces the 28 C coil. It is a universal local battery coil for use in any magneto telephone. Terminals are provided for either soldered or screw connections. Burned out coils should be replaced with new ones, as it is cheaper to order new ones than to have the old ones torn down and repaired. Net weight, 4 1/2 ounces.

Code No. 100-A



No. 100-A

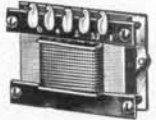
The 100-A induction coil when used with either a No. 700 Masterphone or a No. 118 desk stand, makes an ideal extension set where no ringer or generator is required. All wires terminate at the connecting rack. Terminals are clearly marked. Occupies a space of only 4 1/4 x 1 1/2 in., 1 3/8 in. deep. Net weight 7 ounces.

Code No. 105-A

Induction coil similar to the 100-A in size and appearance for use with wall telephones and desk set boxes wired for the TRIAD (anti-sidetone) circuit. Local battery.

Code No. 109-A

A silicon steel, closed core, local battery coil for TRIAD circuit. The TRIAD circuit (anti-sidetone) assures clear, natural conversation with ample volume. The 109-A coil is designed for use with the 900 type Desk Masterphone and side mounting extension Masterphones.



Condensers

See Pages 22, 23

Code No. 28



No. 28 Height, 2 27/64" Width, 1 1/4" Thickness, 1 1/8"

For telephones used on long party lines the No. 28 condenser in the receiver circuit is of great benefit as it enables other telephones to ring by when the receiver is off the hook. The No. 28 condenser is furnished with a mounting ear and can be fastened in place in any magneto telephone with a single screw. Nearly all Kellogg telephones have a small punching or loop so that this condenser can be installed even when not furnished with the telephones. On other makes it can be added by putting in a third receiver binding post, connecting the condenser between the new post and one of the old ones and then removing the receiver cord from the old post to the new one. Net weight, 3 ounces.

Code No. 67



No. 67

It is sometimes desirable to place a condenser in series with the ringer of magneto telephones in order to have a line clear of all battery leaks for testing purposes. These are not regularly furnished in Kellogg magneto telephones on account of the small demand. Net weight, 6 ounces.

Height, 3 3/8". Width, 1 1/2". Thickness, 1 3/8".

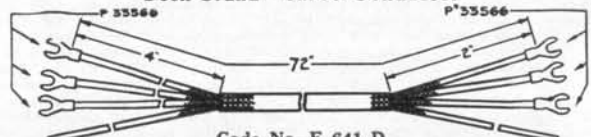
Cords

See Pages 24, 26

Kellogg desk stand and receiver cords are of the new type wet-proof construction. A specially compounded insulation is used that prolongs their useful life. It absolutely seals the heavy, eighteen-strand tinsel against moisture and oxidation. Naturally, the tinsel retains its original flexibility and conductivity, thus enabling it to withstand the constant twisting, jerking and bending that cords are subjected to. Long field tests under the most trying conditions have proven this.

The heavy eighteen-strand tinsel conductor with its moisture-proof compound is protected by a tough cotton outer braid. The overall braid is of brown mercerized cotton.

Desk Stand—Three Conductor

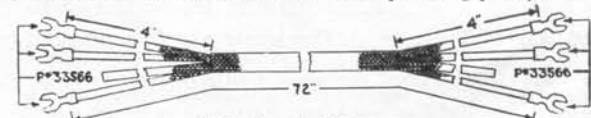


Code No. F 641-D

The F 641-D cord, 72 inches in length, has spade tips on both ends. Tracer colors, brown, black and orange. Fits Nos. F 84, F 110, F 115 stands.

Code No. 641-D

The 641-D cord is the same as F 641-D except having pin tips.



Code No. F 640-D

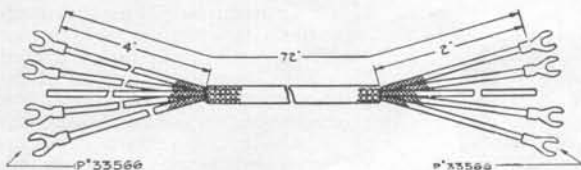
The F 640-D cord, 72 inches in length, has spade tips on both ends. Tracer colors, green, orange and red. Fits Nos. F 115-A, F 118, F 118-B, F 135, F 138 and F 301 stands.

MAGNETO TELEPHONE PARTS

Code No. 640-D

The 640-D cord is the same as F 640-D except having pin tips.

Four Conductor



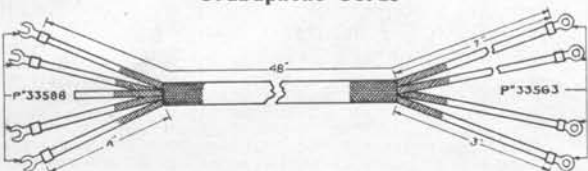
Code No. F 666-D

The F 666-D, 72 inches in length has spade tips on both ends. Tracer colors brown, black, red and orange. Fits No. F 28 and other four conductor stands arranged for flat tips.

Code No. 666-D

The 666-D cord is the same as F 666-D except having pin tips.

Grabaphone Cords



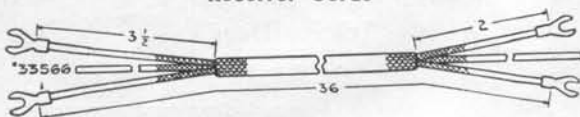
Code No. F454-G

The F 454-G cord, 48 inches in length, has spade tips on the box end and closed tips on the grabaphone end. Tracer colors, brown, black, red and orange. Used on standard Kellogg No. F 11 and F 12 grabaphones.

Code No. 454-G

The 454-G cord, 48 inches in length, has pin tips on the box end and closed tips on the grabaphone end. Tracer colors, brown, black, red and orange. Used on Kellogg No. 11 and 12 grabaphones.

Receiver Cords

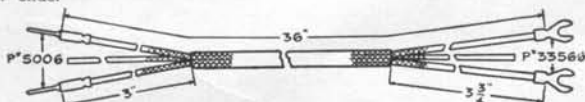


Code No. F644-TR

The F 644-TR cord, 36 inches in length, has spade tips on both ends. Tracer colors brown and black. Fits F 41-A and other standard receivers.

Code No. 644-TR

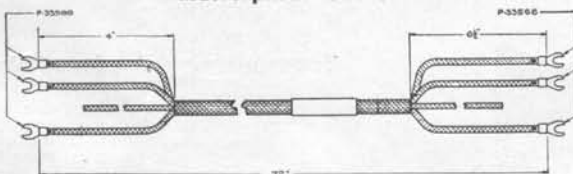
The 644-TR cord is the same as F 644-TR except having pin tips on both ends.



Code No. F642-TR

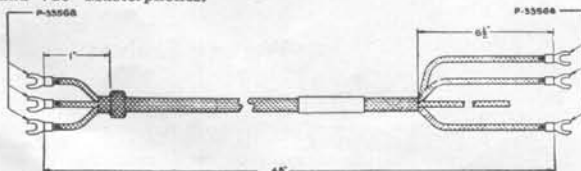
The F 642-TR cord, 36 inches in length has pin tips on receiver end and spade on the stand end. Tracer colors, brown and black.

Masterphone Cords



Code No. F674-D

The F 674-D cord, 72 inches in length has spade tips on both ends. It is a three-conductor cord with red, yellow and green tracer colors. Fits Nos. 700 and 725 Masterphones.



Code No. F673-G

The F 673-G cord, 48 inches in length has spade tips on both ends. It is a three conductor cord with red, yellow and green tracer colors. Fits the No. F 27 handset.

Key Boxes

Code No. 8



The No. 8 key box consists of a standard No. 1028 single throw key having 2 make and break springs, mounted in a black ebony finished wood box. Dimensions, 5 1/2" high, 3 3/8" wide and 1 3/4" deep. All springs are wired to binding posts, making it a very simple matter to make the necessary connections.

This box is used to connect the telephone to either of two lines or to connect either of two telephones to a single line. Net weight, 12 ounces.

No. 8

Code No. 9

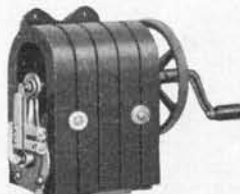
The No. 9 key box is similar to the No. 8 except equipped with a standard No. 1030 double locking key having two sets of make and break contacts on each side. It is used to connect the telephone to either of three lines or to connect either of three telephones to a single line.

Generators

See Page 24



No. 15



No. 53

Kellogg generators are built with extreme care and accuracy and with a little care and occasional oiling, should last for years. The magnets are made of the finest tungsten magnet steel. Every shipment of this steel is carefully tested in the laboratory before being made into magnets. The magnets after being formed are given a special treatment to secure the proper degree of hardness. The armature is of the shaftless type, giving liberal winding space. All parts are carefully machined and held to the closest possible limits, insuring a smooth running powerful generator. End plates and gears are brass and springs are of heavy German silver.

Code No.	No. of Bars	Weight	Remarks
15	3	6 1/2 lbs.	Lines in town
53	5	9 lbs.	Farm lines
59	5	9 lbs.	Farm line pulsating and alternating current.

Generators with pulsating and alternating current springs for telephone with secret calling button can also be furnished, if desired.



Hinge

Piece No. 37778 is the standard telephone hinge, being 1 1/2" long, 1 1/4" overall width. Screws which are not furnished unless specified are Piece No. 7865.

Cabinet Lock

Standard cabinet lock for all types of wood telephones, code No. 14.



Number Plates

See Page 24

Code No. 87

Can be lettered by the user as desired. Fits over and is held in place by the threads of the transmitter mouthpiece.



No. 87

Code No. 88

Can be lettered by the user as desired. Held in place by two of the transmitter back screws.



No. 88

Binding Posts

Code No. 11

The No. 11 binding post is of white nickel finish, the end being tinned for soldering. The mounting screw which is furnished is a 5x 1/2" round head, wood screw, plated.

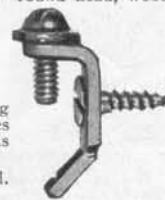


No. 11

Code No. 63

The No. 63 is white nickel in finish, the end being tinned for soldering. It is provided with a clip which takes a regular spade or spike tip. Mounting screw which is furnished is No. 6x 1/2" flat head wood screw, plated.

These binding posts are the ones most commonly used. If interested in other styles write for complete list.



MAGNETO TELEPHONE PARTS

Receivers

See Page 26

The Kellogg Code F41A receiver has long bipolar type magnets, brass retaining cup, and moisture-proof receiver cord with heavy tinsel conductors.



No. F 41 A

The Kellite shell is highly polished and the cord hole in the end of the case is rounded out, which prevents excessive wear on the cord. The ear cap securely holds the diaphragm and receiver in the shell and is shaped to perfectly fit the orifice of the ear and has no objectionable lettering around the edge.

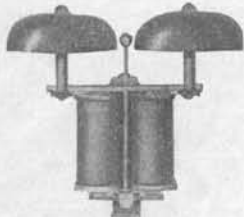
The shell and cap are of a standard size so that many other makes of receivers will fit the shell perfectly.

The magnets are made of a special grade steel and treated with a rust-proof finish.

The cord terminal posts are so designed that either spade or spike tip cord tips can be used. The cord is thirty-six inches long, consisting of heavy tinsel strand, braided and thoroughly insulated and protected from moisture by a special moisture-proof covering. The overall braid is heavy, which protects the conductors against breakage due to bending and stretching. The cord is regularly supplied with spade tips on both ends, but can be supplied with spike tips if desired.

Pc. 27944, Kellite receiver shell only. Pc. 32307, cap only.

Ringers—Straight Line



No. 78

The Kellogg No. 78 ringer has black enameled brass gongs with adjustable gong posts but non-adjustable armature. This ringer is built for maximum efficiency and the armature adjustment cannot be changed. The greatest care is maintained in securing this adjustment so that the ringer will respond to the weakest currents but will not freeze or stick. The coils are wound with specially insulated wire on correctly

proportioned spools. This ringer may be mounted on wood of any thickness without affecting the gong adjustment. Net weight, 1¼ lbs.

Code No.
78 A
78 D
78 G

Resistance
1000 Ohm
1600 Ohm
2500 Ohm

Remarks
Straight line
Straight line
Straight line

Biased

The No. 79 type biased ringer of the adjustable type is used for four party selective system using positive and negative pulsating current. Net weight, 1¼ lbs.

Code No.
79 A
79 D
79 G

Resistance
1000 Ohm
1600 Ohm
2500 Ohm

Remarks
Biased
Biased
Biased

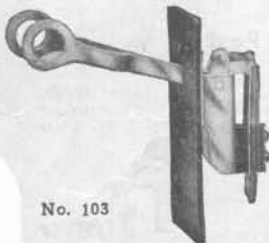
Transmitter Cords

PC 11171, 22¾". PC 11172, 26¾".

Pair of cords for old style long transmitter arms. Spade tips on one end, other end bare. They can be used on shorter arms by cutting back to desired length.

Hookswitches

No. 103



No. 103

The Kellogg No. 103 hookswitch is mounted on a handsomely black enameled steel frame and escutcheon. The springs are of heavy German silver and assembled with a steel reinforcing spring, insuring positive contact. Kellite Dilecto insulations are used. The hook is easily removed by simply pushing the springs forward. When advisable to replace hooks in old style telephones the purchase of this hookswitch is recommended. For rural lines it may be installed complete by boring holes large enough to admit the springs and then fastening in place with four screws.

No. 156 Hookswitch. Same as No. 103 but with screw terminals for regular receiver.

No. 155 Hookswitch. Same as No. 156 for simplified wiring in connection with 100-A or 105-A induction coils.

Masterphone Transmitters and Receivers

57340 Transmitter. The Masterphone transmitter is a compact, self-contained, capsule type unit, with no cord connections. Two locating lugs of different size are cast on the aluminum alloy cup, and correspond to guide slots in the walls of the housing, to assure correct position when inserting. The two heavy bronze contact clips eliminate cord terminals and screws. They grip the ends of the bar conductors firmly on both



57340 Transmitter

sides assuring positive electrical connections. The carbon chamber is formed between two spherically shaped electrodes, permitting free movement of the carbon granules and uniform contact with both electrodes at all times regardless of the position or angle in which the transmitter is held. This is the original, patented, NON-POSITIONAL transmitter.



55919 Receiver

55919 Receiver. The Masterphone receiver, like the transmitter, is a compact, self-contained unit which is easily removable. It has no cord connections, but as in the transmitter, two heavy bronze clips make the electrical connections. Locating lugs slide easily into the guide slots in the housing. The Bakelite cap grips the diaphragm firmly and evenly. Both receiver and transmitter caps screw directly into the housing. No metal retaining rings are necessary. This receiver is of the standard bi-polar type using a cobalt magnet which has more magnetic saturation and longer life. It is in the perfect electric balance with the transmitter and induction coil. The receiver shell is made of heavy pressed aluminum reinforced to insure the correct air gap between poles and diaphragm.

Transmitters

See Page 26



Complete Transmitter No. 22 Type



Pc. No. 46279 Transmitter Back



Transmitter Front Only No. 64 Type



Pc. No. 43720



Pc. No. 26743

The reverse type Kellogg transmitter requires little description—"it talks for itself." Designed more than twenty years ago it still leads in talking qualities, durability and long life. For magneto telephones the LC type is best adapted, as the resistance is such that it will give maximum transmission with a minimum consumption of batteries. For extreme long distance work the L type can be used but requires the replacing of batteries at more frequent intervals.

No. 22 LC. Complete with standard black enameled back, pc. 46279, Bakelite mouthpiece, pc. 29779.

No. 22 L. Complete with standard black enameled back, pc. 46279, Bakelite mouthpiece, pc. 29779.

No. 64 LC. Transmitter without back, otherwise same as No. 22 LC.

No. 64 L. Transmitter without back, otherwise same as No. 22 L.

Transmitter Adapters

While many types of adapters are available for attaching Kellogg transmitters to other makes of telephone arms, they are not recommended for general use. Experience has proven that it is more satisfactory to use the Kellogg transmitter with the No. 42 arm attached than it is to use an adapter for attaching transmitter to an old arm. This provides a more modern and rigid apparatus and at the same time conforms with present standards.

Writing Shelves

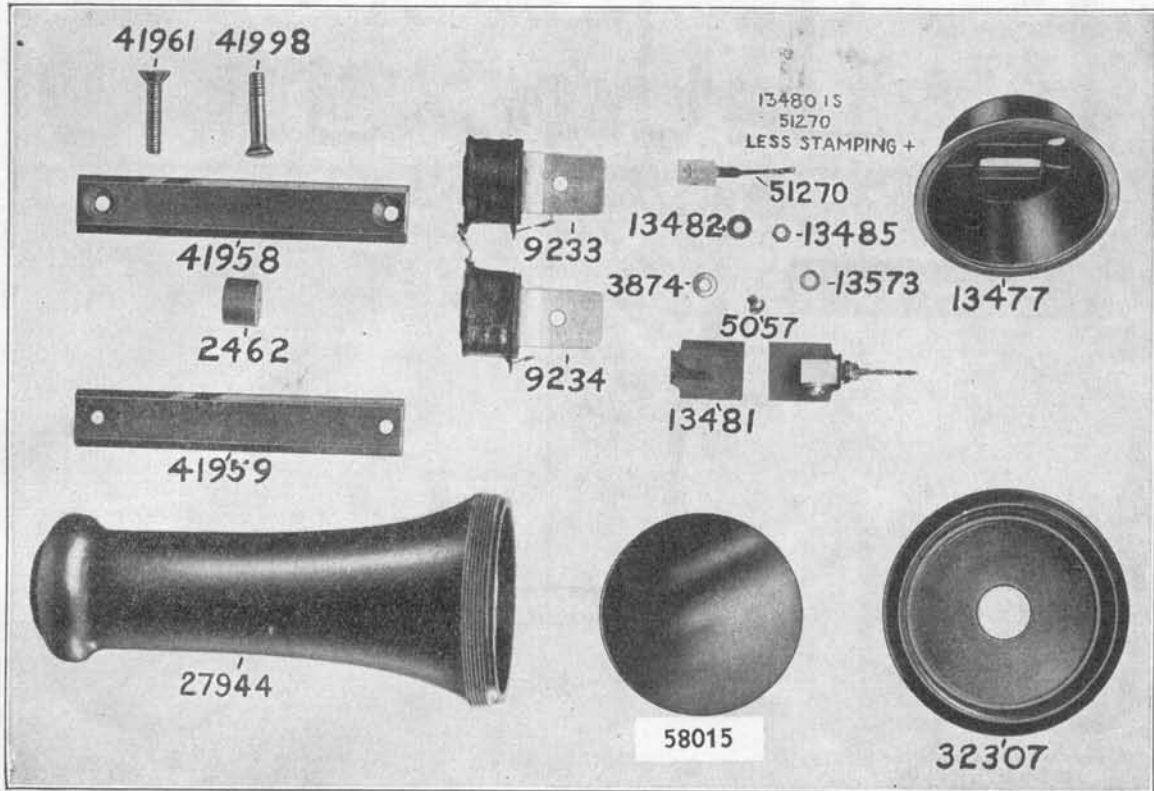
Quarter-sawed oak writing shelves are furnished in two standard styles as illustrated. Other shelves may be had to use on old style telephones, but the use of these standards are recommended if possible in order to avoid the extra expense of having the older styles made up to order.

PC 26743. Writing shelf, two brackets.

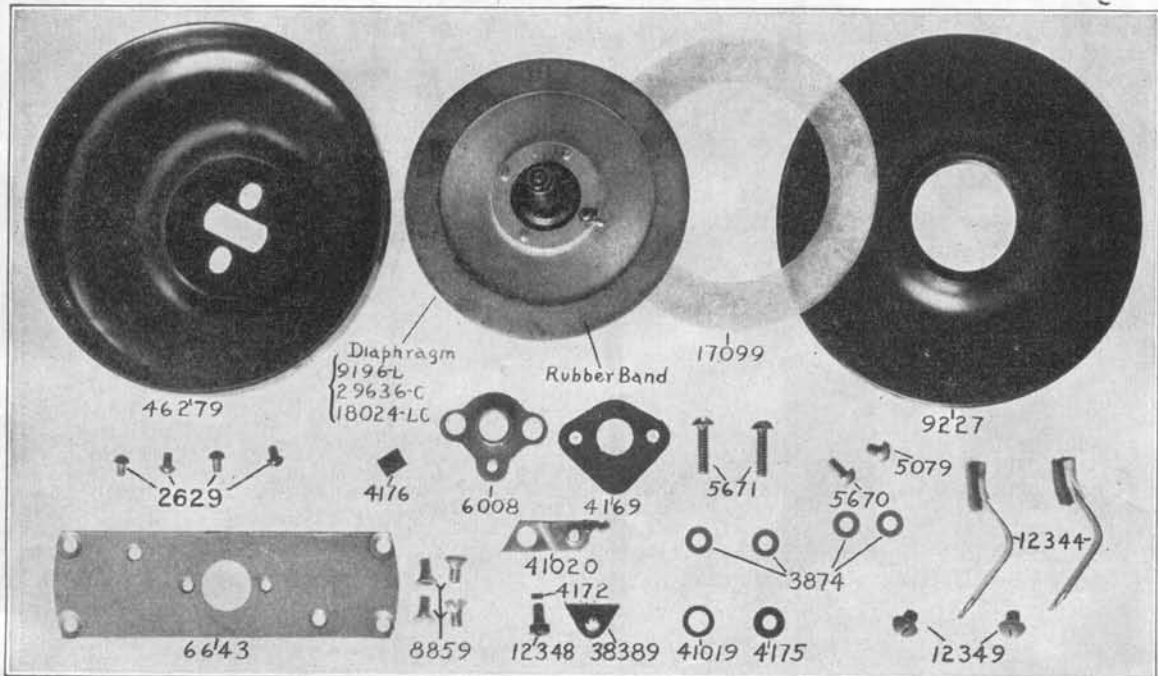
PC 43720. Writing shelf, single bracket as used on standard telephones. Extra sloping.

Kellogg

PIECE PARTS

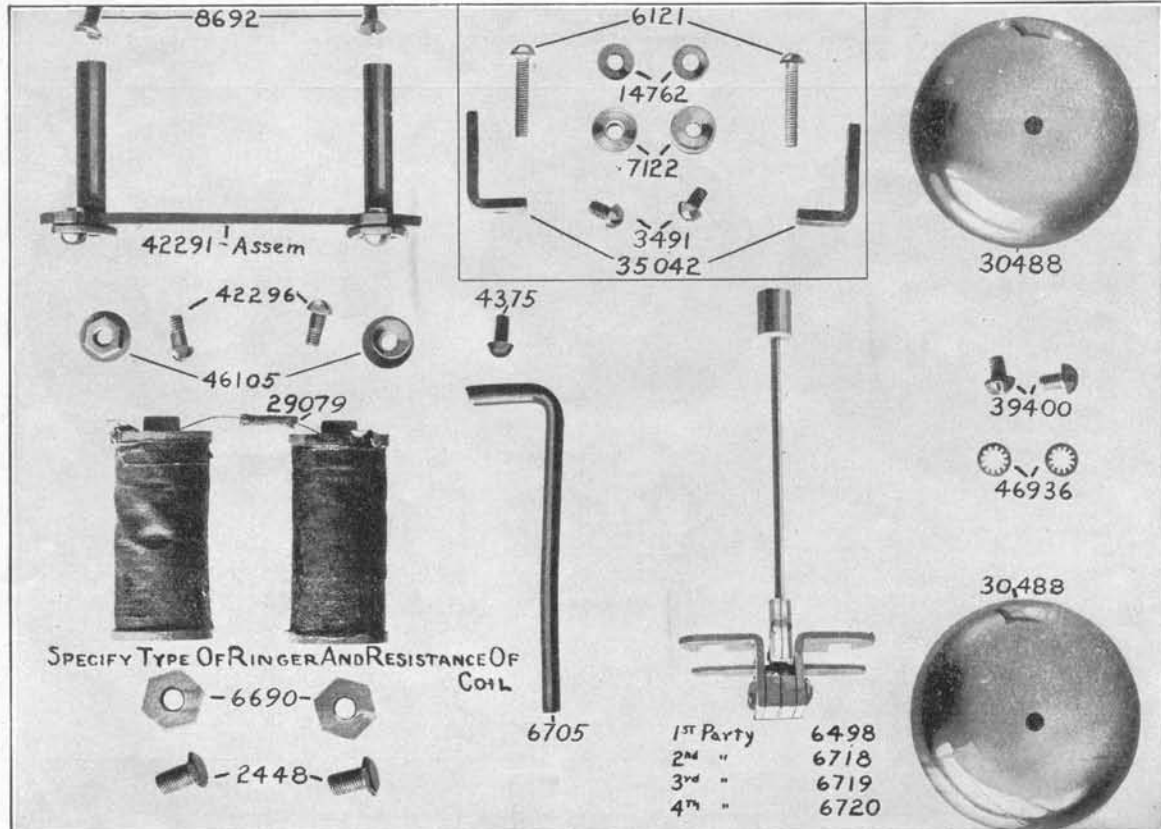
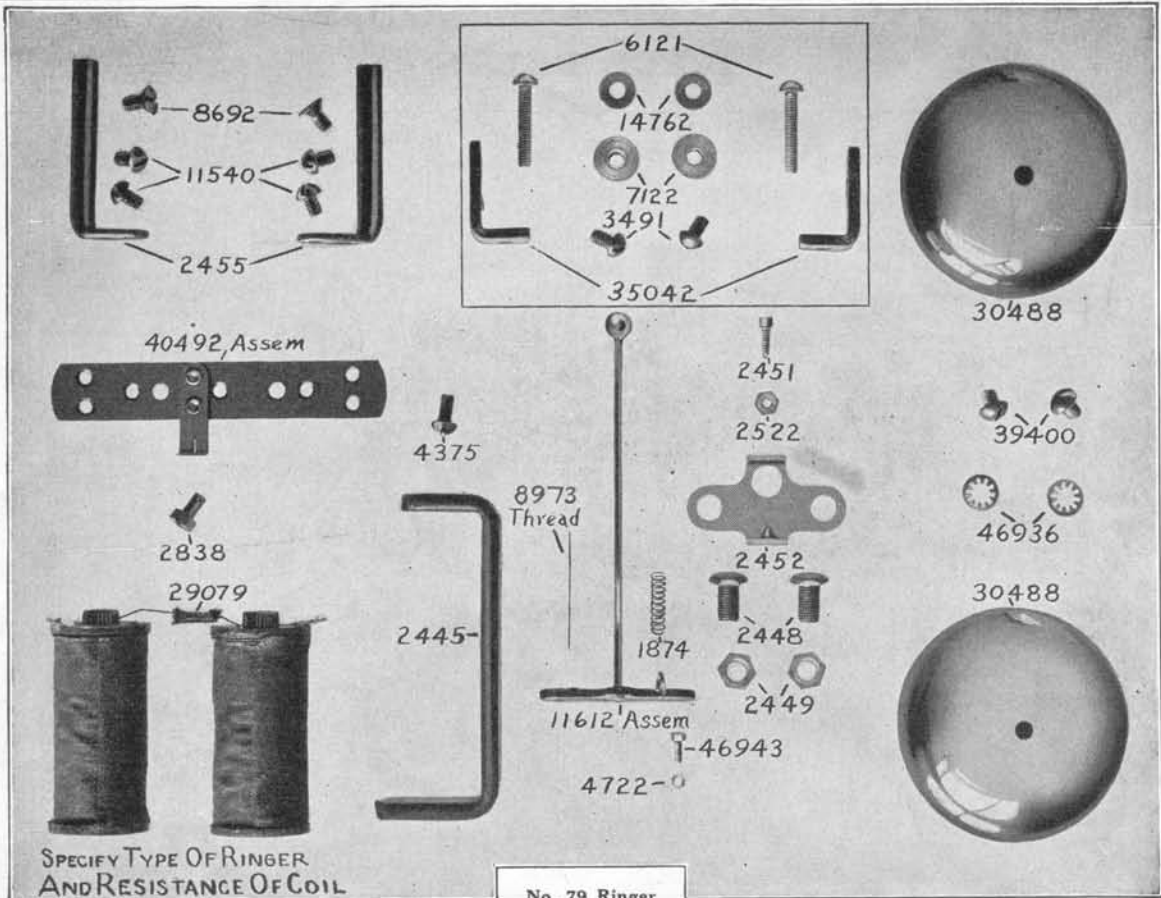


F-41-A Kellite Shell Receivers
Parts are interchangeable with 26-A and 32-A receivers



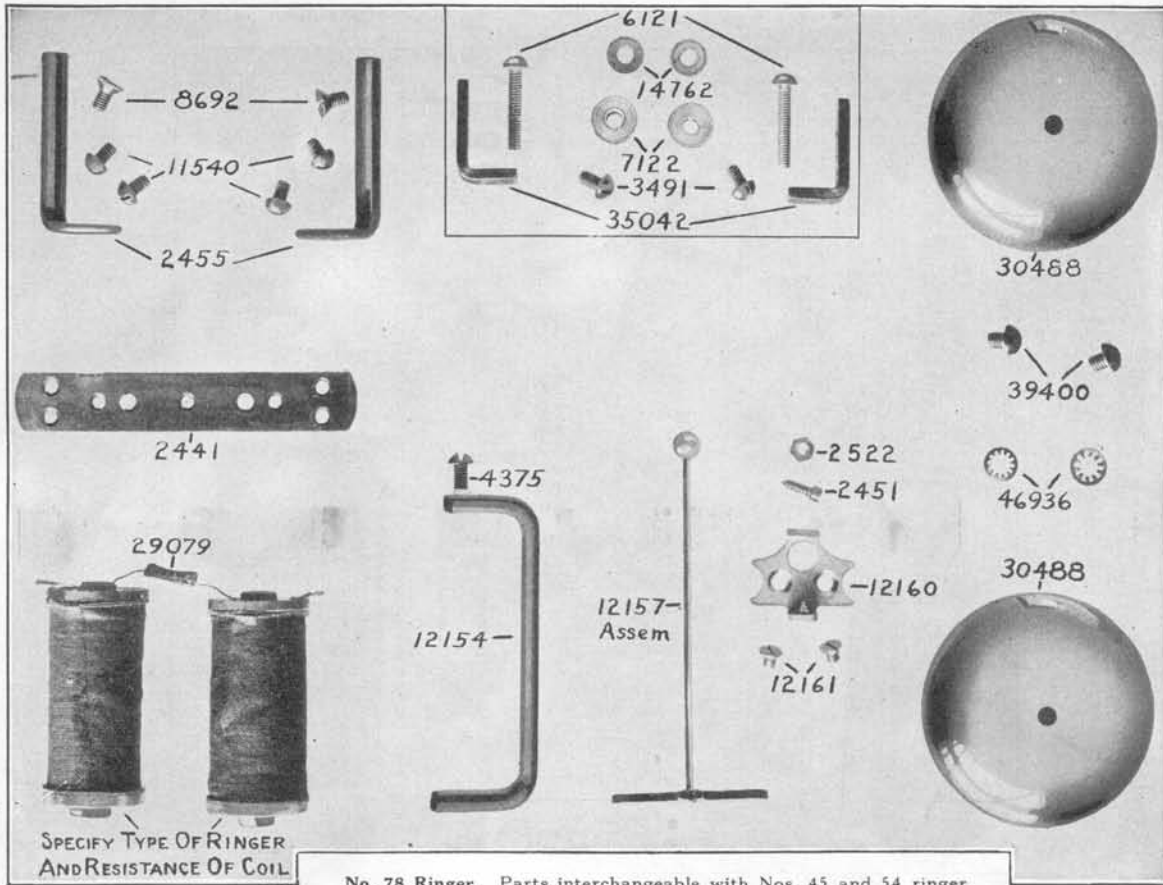
No. 22 Type Transmitter
Pc. 12341 Bridge assembly will mount on old and new type transmitter
If nickel plated transmitter is desired order Pc. 10259 back and Pc. 9164 front, otherwise same as above.

Kellogg

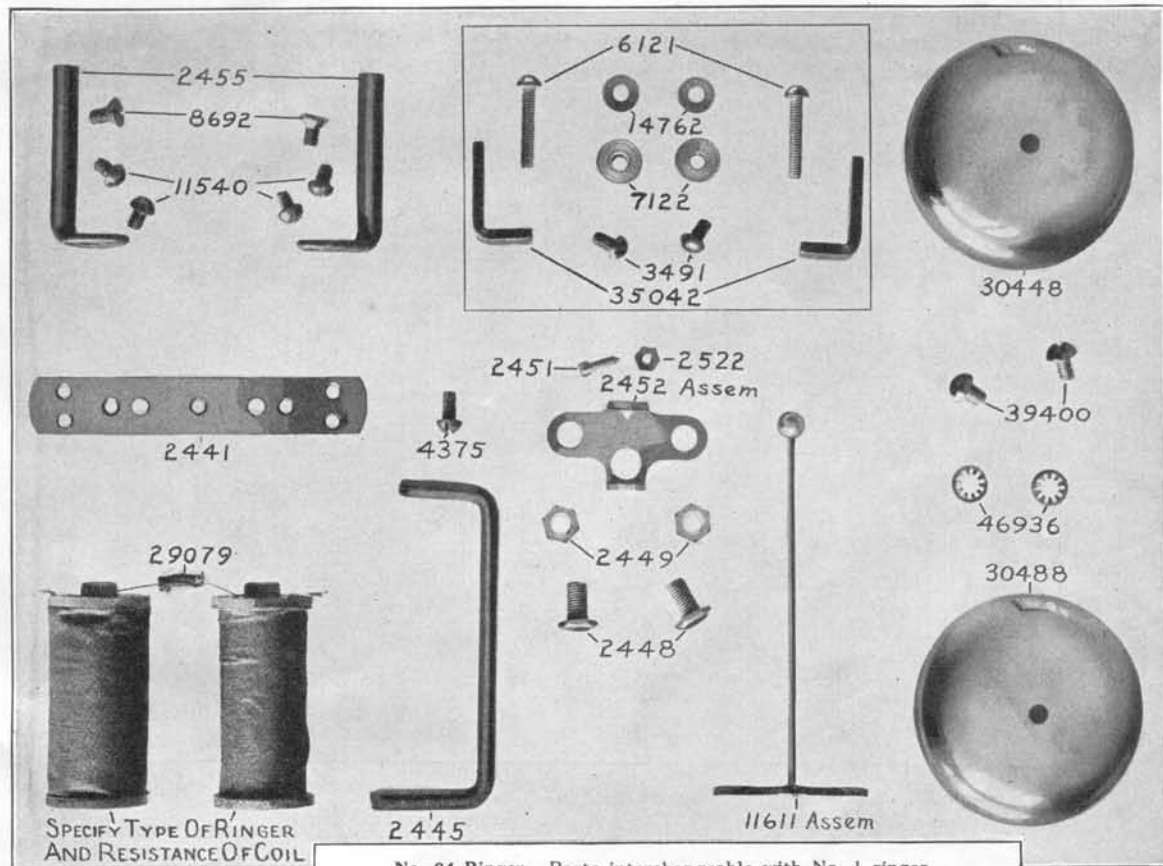


No. 73 Ringer for 30, 42, 54 and 66 cycles. Vibrator assemblies Pc. 15193, Pc. 15194, Pc. 15195, Pc. 15196, 1st to 4th party respectively.

Kellogg

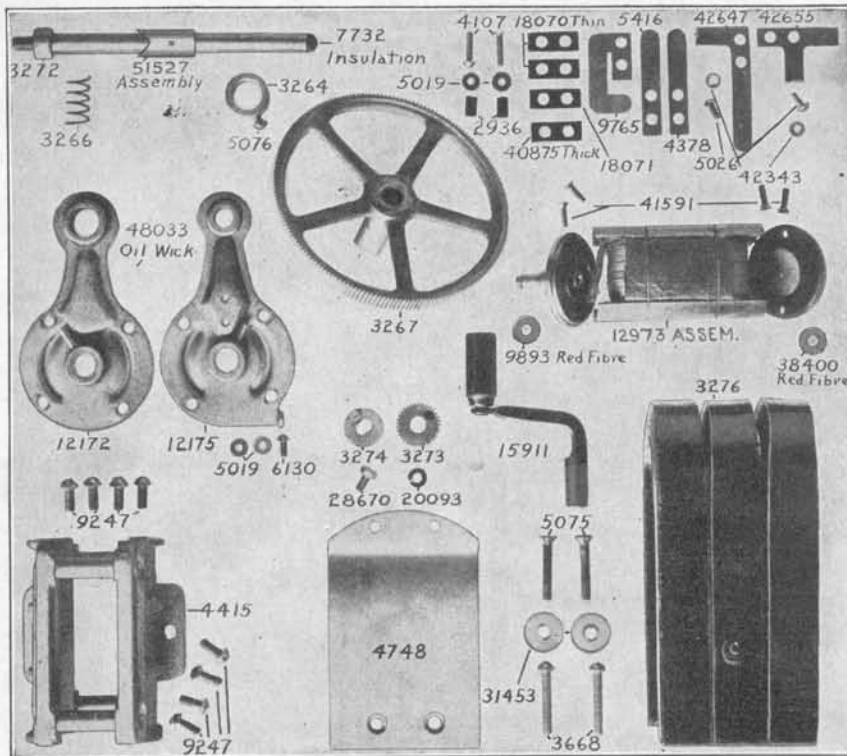


No. 78 Ringer. Parts interchangeable with Nos. 45 and 54 ringer.

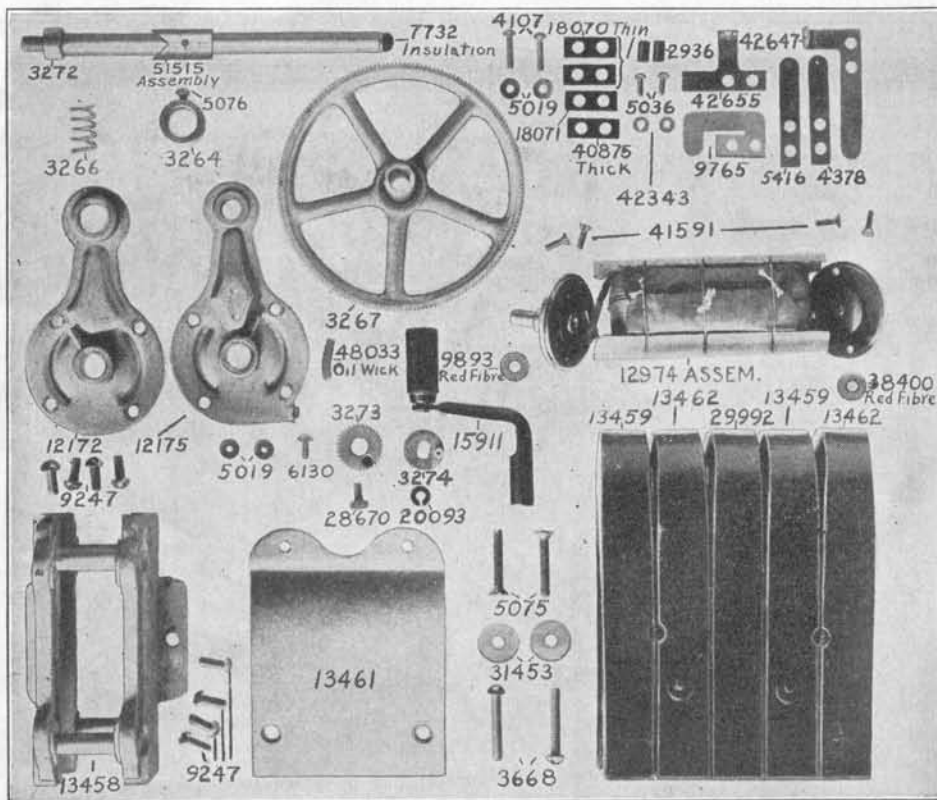


No. 84 Ringer. Parts interchangeable with No. 1 ringer.

Kellogg



No. 15 Generator 3-Bar



No. 53 Generator 5-Bar

No. 22 Generator 4-Bar uses same parts as No. 53 except Pc. 3281 pole piece instead of Pc. 13458 and 4 Pc. 3276 magnets in place those shown

Kellogg

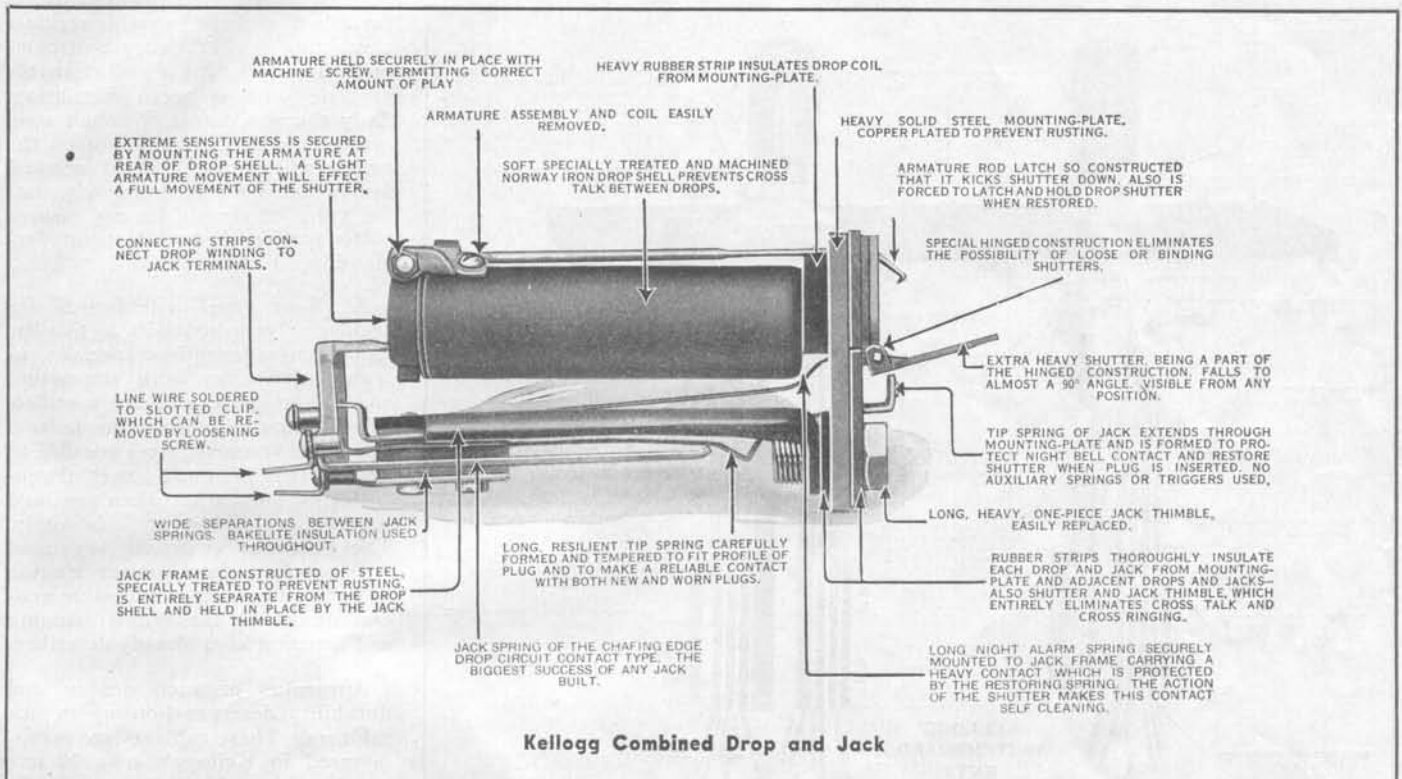
MAGNETO SWITCHBOARDS

The universal popularity of Kellogg magneto switchboards is due to their extremely simple, sturdy construction and ease of operation.

The simplicity of circuits and of apparatus design, combined with good mechanical construction, insure a trouble-free switchboard, requiring little attention to keep in 100 per cent operating condition. No one feature has been over-emphasized at the expense of others. No efficiency has been sacrificed to gain trick design merely for sales purposes. Every feature and function

is scientifically proportioned to the part it has to play in efficient telephony. Each piece of apparatus is manufactured in the Kellogg plant and guaranteed against inherent defects for one year.

It is true that in switchboards, as well as every other mechanical assembly, there are one or more points that bear the brunt of service. In magneto switchboards, for example, the drops and jacks and keys receive the hardest use. The efficiency of the entire switchboard depends upon these essential parts. For that reason, their superior design is described in detail.



Combined Drops and Jacks

Because magneto lines are not always in the best condition, Kellogg has concentrated on the design and manufacture of a sensitive drop and a positive jack that is simple and rugged in construction, and has high resistance against lightning and sneak currents. The Kellogg line drop and jack are combined into one unit, an original Kellogg development. When the line drop falls, the operator in answering the subscriber, by inserting her plug in the jack associated with that line drop, automatically restores the drop:

The armature assembly of the Kellogg drop is simple. The long lever principle provides maximum action at the shutter with a minimum air gap at the armature. With this small air gap between the armature and the coil, sensitive and positive operation is insured with a minimum current flow.

Drop shutters are firmly hinged, eliminating pins which work loose and fall out. Shutters fall by gravity; but the Kellogg armature latch is designed to push the shutter down and prevent "sticking."

Extra heavy insulators separate the drop and jack from the mounting plate, reducing the possibility of lightning and sneak current damage to a minimum.

Kellogg jacks are simple and efficient. A long, combined tip and restoring spring of evenly tempered nickel silver is the only spring making contact with the plug.

This spring is long and resilient, placing the heaviest wear on the inexpensive and easily replaced jack thimble. It serves the triple purpose of completing the tip side of the connection, removing the drop coil from across the line, and restoring the drop shutter to its normal position.

The night alarm circuit is completed by the action of the drop shutter against a long German silver spring. This spring is protected from accidental injury and so arranged as to give perfect operation throughout the entire life of the switchboard.

Supervision

Modern magneto switchboards make use of either double drop or double lamp supervisory cord circuits. With either type of cord circuit, the operator sees at a glance which one of the connected lines is re-calling.

Kellogg

MAGNETO SWITCHBOARDS

Double lamp supervision is fast replacing double drop supervision because of its greater speed and accuracy. The lighting of a supervisory lamp immediately attracts the eye of the operator because it is located on the keyshelf where it can be more readily seen. This keyshelf location permits the supervision to be placed closer to the cord with which it is associated, thereby eliminating the possibility of the operator taking down or cutting in on the wrong pair of cords.

Machine ringing current can easily be supplied from the simple power equipment which lights the lamps and furnishes continuous battery to the operator's transmitter. This is another reason for the increasing popularity of Kellogg lamp supervision switchboards.



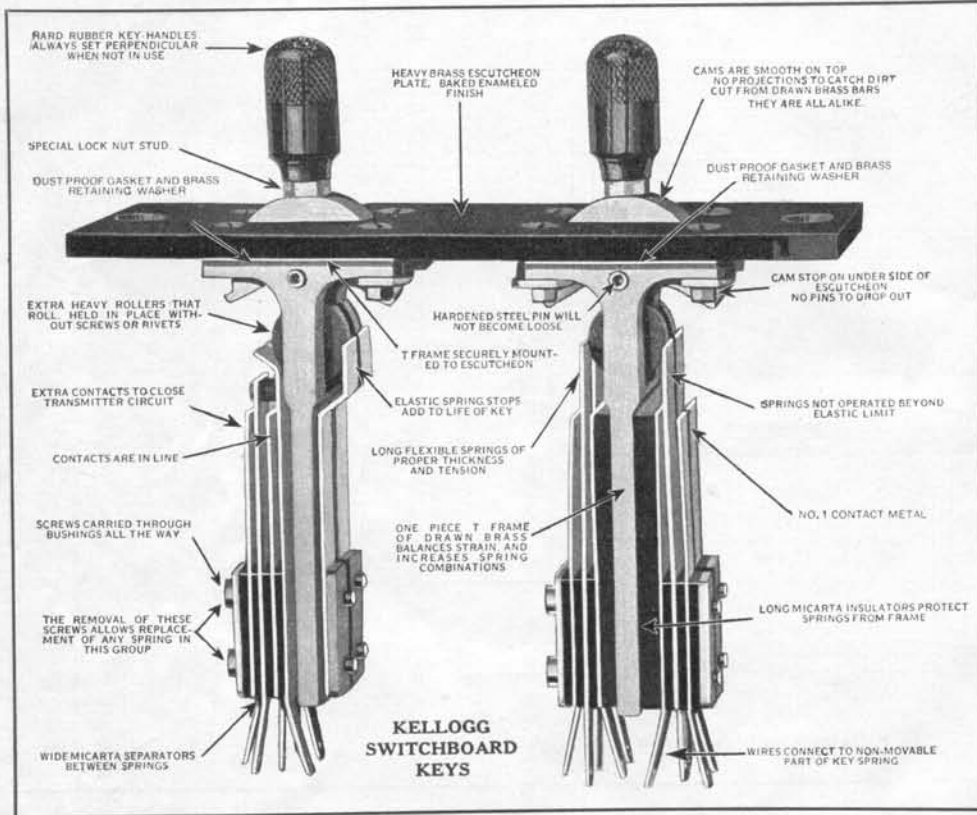
springs and contacts are protected from dust with a felt cushion placed between the frame and escutcheon.

The operator's equipment for each floor type switchboard comprises: transmitter, induction coil, head receiver, hand generator, generator switching key and, in switchboards arranged for more than one operator, a "position switching key" which when operated enables one operator to handle both positions. Kellogg switchboards are furnished complete—with either the suspended or breastplate type operator's transmitter, depending on the purchaser's preference.

With either type transmitter is furnished a light weight receiver combining real efficiency and comfort. It has loudness and clearness of tone with perfect articulation. Only the very finest of cobalt steel is used in the manufacture of the magnets, assuring a most unusual sensitiveness for incoming alternating voice currents. Its use insures better service, through better understanding.

All floor type switchboards are regularly furnished with a five-bar hand generator unless special generators delivering both alternating and pulsating currents are specified. The Kellogg generator is made from the finest magnetic steel possible to obtain. It is the most powerful generator on the market when new, and retains its full power indefinitely. The generator switching key, used for switching from power ringing to hand ringing, is of the same general design as the regular ringing and listening keys already described.

Apparatus of such quality and durability deserves housing in fine cabinets. These cabinets are manufactured in Kellogg's own 12-acre woodworking plant, where only the finest lumber is used. Artisans with years of experience on fine wood-



Keys

Kellogg keys are designed with a full knowledge of the requirements of rural service. Kellogg engineers realize that magneto service is very heavy and competent repair service is not always obtainable. For this reason, Kellogg keys are built on a heavy cast brass frame that cannot rust, warp, nor twist. There are no intricate springs and levers to get out of order and cause trouble. Lightning discharges are always heaviest on long rural lines, and for this reason, Kellogg keys are insulated with heavy micarta strips and bushings.

The long resilient springs, of nickel silver, permit the greatest breadth of action without breakage. They are operated by a smooth acting cam equipped with pivoted rollers. The rollers contact with the springs so that there is practically no wear on these vital parts. The



Breastplate Type Transmitter

work give the same care and attention to the building of Kellogg switchboard cabinets as Kellogg engineers give to the equipment that goes into them. All cabinets, unless otherwise specified, are made of well-seasoned quarter sawed oak, with a medium dark finish.



Repeating Coil

The following pages are devoted to the several types of magneto switchboards. Because of the long life of Kellogg switchboards, the purchaser is cautioned to select a board with at least fifty per cent additional capacity to accommodate the future growth of his exchange for many years to come. Only the present requirement of lines and cords need to be equipped at the time of purchase, and the additional equipment may be added as required.

Kellogg

MAGNETO SWITCHBOARDS

Type 9-B Switchboard

To meet the demands of exchanges too small to justify the expense of the floor type cabinet, the Kellogg Company has designed a complete line of wall type switchboards illustrated on this page. These wall switchboards are of the unit type. Should they ever become filled to capacity, another wall switchboard can be placed alongside, or the drops and jacks and plugs, being of standard construction, can be used in a Kellogg floor type switchboard.

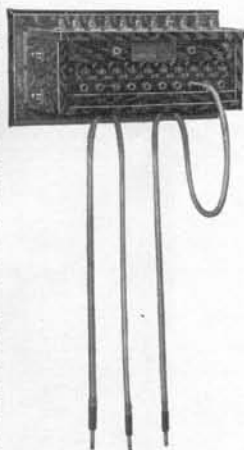
The 9-B is the smallest of the Kellogg wall type switchboards. Its operation is just as positive and just as dependable as the largest magneto board. Its capacity is limited, however, to ten drops and jacks with night alarm, two cord circuits and two supervisory or listening-in jacks. Code night alarm contacts, causing the night alarm bell to give a signal to correspond to the code rings on the bell, may be had if desired.

The use of this type switchboard is recommended where the requirements will not exceed ten lines. Gas, power, railway, and mining companies find this switchboard indispensable for inter-communicating purposes. Once installed, it operates for many years with but little attention.

The line wiring terminates on binding posts on the top of the cabinet to which the outside lines are fastened. Through special design, the line binding posts include air gap lightning arresters.

The operator's set, which is furnished only when specified, and which may consist of any standard magneto telephone with hand generator and bell box, should be connected to the cord and plug furnished with the board.

Shipping weight approximately twenty-five pounds.



Type 17-B Switchboard

This type switchboard has a greater capacity than the 9-B. It is wired for 34 lines, 6 single drops supervisory cord circuits equipped with combined ringing and listening keys, night or code alarm, and provided with an 8-foot cable extending from the top of the cabinet. The switchboard may be partially equipped to care for present traffic requirements, and as future growth demands it, equipment can be added up to its total capacity.

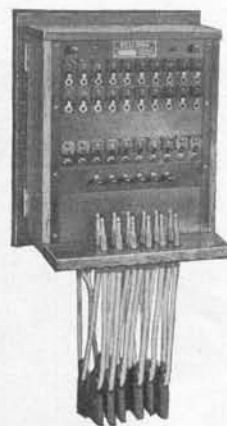
The drops and jacks are mounted ten per strip. They are of standard design, which permits them to be interchanged with those of any Kellogg floor type magneto switchboard.

This board has found much favor among managers of small exchanges because of its dependability and easy operation.

The cabinet is hinged on one side so that the face equipment may be swung away from the wall, permitting adjustments and connections to be made with ease. All parts are standard and may be replaced on order.

The 17-B, as illustrated, is not furnished with operator's equipment unless specified. Two binding posts are located inside the cabinet to which any standard magneto telephone can be connected.

Shipping weight approximately fifty-five pounds.



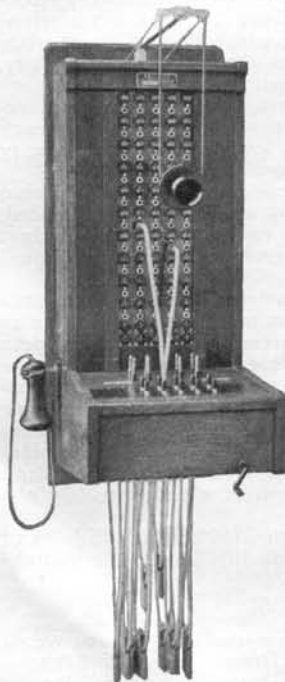
Type 7-A Switchboard

When a 50 line magneto switchboard is required and lack of available space will not permit a floor type cabinet to be used, the Kellogg 7-A wall magneto switchboard is the popular choice because of its compactness and fine performance. The cabinet, mounted on the wall, swings outward from the back panel, permitting connections and inspection to be made with ease.

Standard drops and jacks are used and mounted five per strip. The 7-A switchboard is wired for fifty drops and jacks, regular or code night alarm, five single drop supervisory cord circuits, hand generator and twelve feet of cable. With this type of switchboard, as in all other Kellogg switchboards, equipment may be installed as required up to the ultimate capacity to take care of future growth.

The lines are brought out of the cabinet in a fifty pair, braid covered, wax core cable. The operator's equipment consists of a standard suspended type transmitter with either the hand or the headband type receiver. All circuits are arranged for connecting to either metallic or grounded lines.

Shipping weight approximately two hundred fifty pounds.



Type 17-C Switchboard

The Kellogg 17-C wall switchboard is the same as the 17-B except that it is equipped with a suspended type operator's set with a hand generator mounted in a separate cabinet. This type makes a very desirable, complete, and compact switchboard unit.

Shipping weight approximately sixty-five pounds.

Type 29-B Switchboard

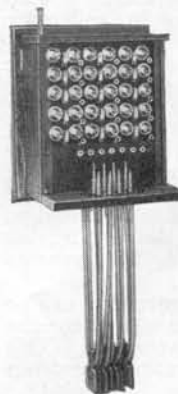
Kellogg engineers designed this switchboard to meet the specific requirements of rural exchanges and switching centers where an audible line signal is desired. It differs from other Kellogg magneto wall switchboards and eliminates the operator of being in immediate attendance at all times.

A bell is wired across each line and operates similar to that of a telephone bell. This enables the operator to tell, without being at the switchboard, whether a party line subscriber is signaling her or another party on the same line.

The capacity of this board is limited to 15 lines, 5 connecting cord circuits, and night alarm. It may be equipped with as many cord circuits as desired up to its total capacity. The line equipment is in units of three each, permitting the switchboard to be equipped with 3, 6, 9, 12 or 15 lines.

An 8-foot cable extends from the top of the board. The cabinet is hinged at the side, permitting it to swing outward from the back panel. The operator's instrument cord may be connected to any standard magneto telephone. Night alarm equipment is furnished which consists of a buzzer and switch, and may be located wherever desired, near or apart from the switchboard. The buzzer will operate when any of the switchboard drops fall, providing the night alarm switch is closed.

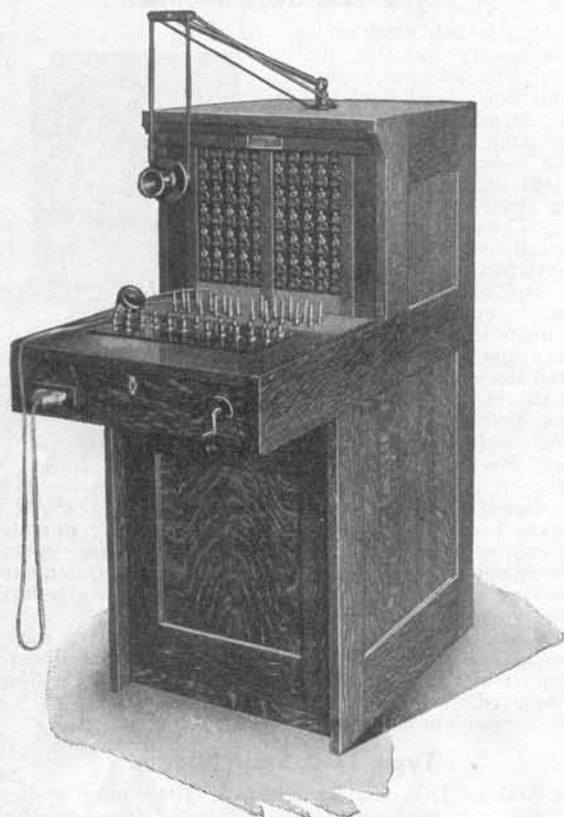
Shipping weight approximately fifty-five pounds, fully equipped.



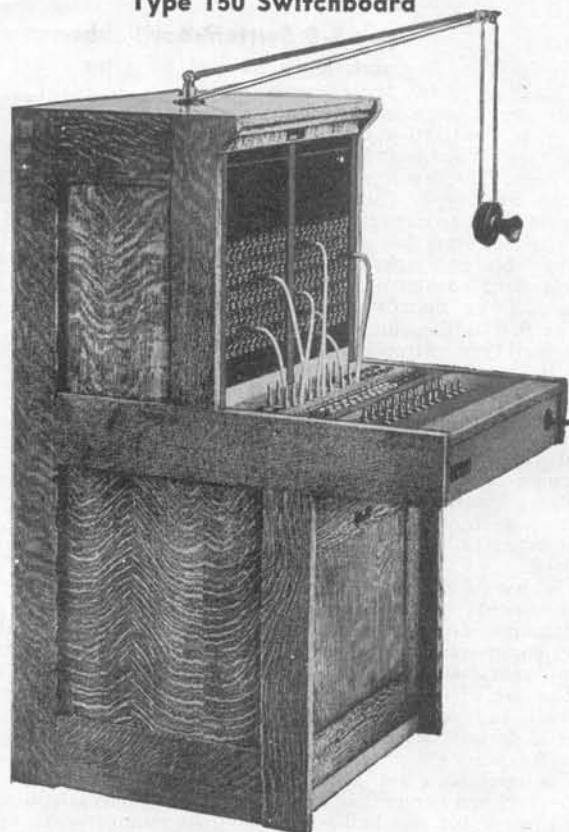
Kellogg

MAGNETO SWITCHBOARDS

Type 50 Switchboard



Type 150 Switchboard



This is the smallest floor type switchboard manufactured by the Kellogg Company. All problems of design and engineering have been considered from the standpoint of the operating company, with the result that the Kellogg floor type switchboard is simple, inexpensive to maintain, is durable, and renders a grade of service which is not excelled by any other magneto equipment.

A new special Magneto Switchboard Bulletin more completely describes the details of Kellogg floor type magneto boards. A copy of this bulletin will be sent free upon request.

The Kellogg type 50 switchboard is wired for fifty lines, ten drop supervision cord circuits, suspended or breast-plate operator's equipment, hand generator, generator switching key, night or code night alarm, and equipped with twelve feet of cable. This switchboard is arranged for single or double drop supervision. It may be partially equipped if desired, leaving the additional equipment to be added as needed. This permits the switchboard to grow with the community.

Either the breast-plate or suspended type transmitter can be furnished. However, the breast-plate type is more sanitary, as it allows each operator to have a separate instrument. This type of switchboard has two panels for mounting the drops and jacks in strips of five, and if desired, the space occupied by one strip may be used for a pigeonhole or for a cash drawer which fits the pigeonhole. This type switchboard is recommended in preference to the wall switchboard of the same number of lines, when space is available. The over-all dimensions are: depth 24 $\frac{3}{4}$ ", width 18 $\frac{3}{4}$ ", and height 3' 9 $\frac{1}{4}$ ". The key shelf extends 10 $\frac{1}{4}$ " from the switchboard, giving sufficient room for the operator to write toll slips.

The Kellogg type 150 magneto switchboard has been designed for exchanges requiring the floor type board of a larger capacity than 50 lines.

All of the advantages and simplicity of the smaller switchboards have been retained in the Kellogg 150 type. It is wired for 100 or 150 lines, 15 cord circuits, suspended or breast-plate operator's equipment, hand generator, generator switching key, night or code alarm, and equipped with 12 feet of cable.

Kellogg floor type switchboards are built to customer's requirements. Standardized parts are used in equipping each board, which assures quick delivery, low price due to quantity production, and replacement parts available on order.

This cabinet may be partially equipped if desired, leaving space and wiring for additional drops and jacks when needed. If greater capacity than 150 lines is required, another cabinet of the same type may be used in connection with the original unit.

This switchboard appeals particularly to the exchange manager who wishes to employ the latest methods of operation in his magneto switchboard without discarding present magneto telephones and without incurring the expense of bringing the line construction up to the standard required for common battery service. Associated with each cord circuit, either drop or lamp signal type of supervision can be furnished. With Kellogg lamp supervision, an operator can handle her calls more rapidly than she can when the switchboard is equipped with drop supervision, due to the fact that lamps are more readily observed.

The over-all dimensions are: Depth 24 $\frac{3}{4}$ ", width 25 $\frac{1}{8}$ " and height 4' 3 $\frac{1}{4}$ ". The key shelf extends 10 $\frac{1}{4}$ " from the switchboard, giving ample writing room.

CAPACITIES

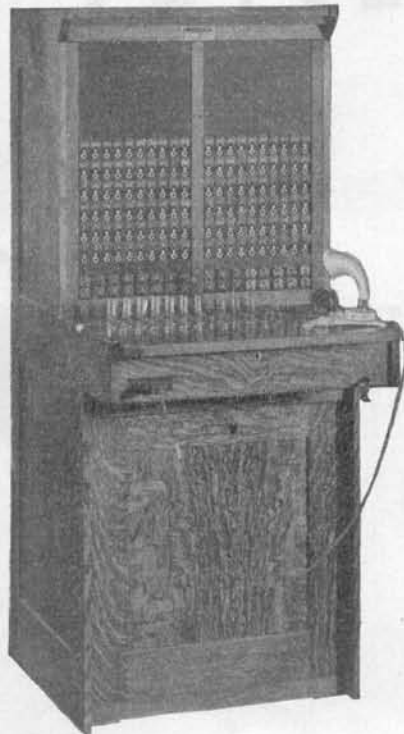
Code No.	Lines Wired	CAPACITY		Approximate Shipping Weight
		Cords Wired	Supervision	
50	50	10	Drop	350 lbs.

Code No.	Lines Wired	Cords Wired	CAPACITIES		Approximate Shipping Weight
			Supervision		
150-A	100	15	Drop		500 lbs.
150-B	150	15	Drop		500 lbs.
150-AL	100	15	Lamp		600 lbs.
150-BL	150	15	Lamp		600 lbs.

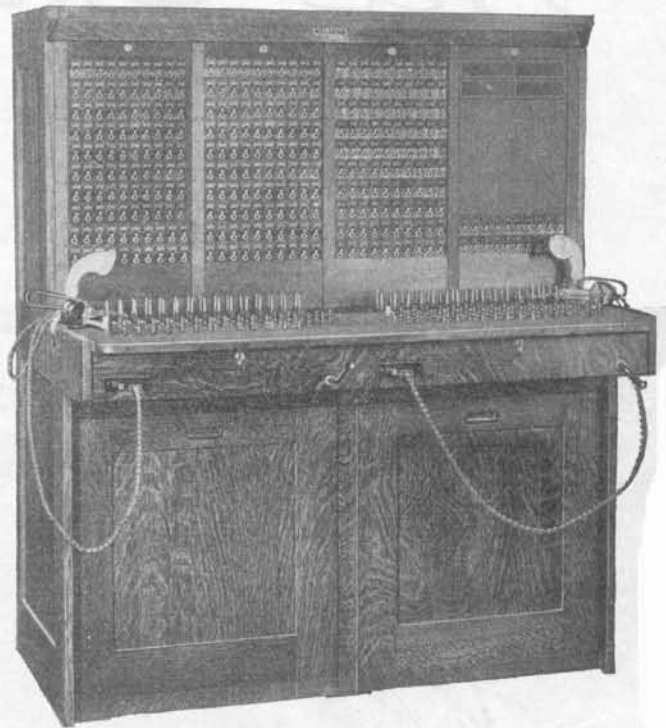
Kellogg

MAGNETO SWITCHBOARDS

Type 200 Switchboard



Type 400 Switchboard



The largest standard single position Kellogg magneto switchboard is the 200 type. This board has an ultimate capacity of 200 lines, though it may be purchased with 150 or even 100 lines wired. The price is figured according to the number of lines wired and the equipment placed in it.

The 200 type, when purchased with wiring for 200, 150 or 100 lines, is completely wired for 15 cord circuits, suspended or breast-plate operator's equipment, hand generator, generator switching key, night or code alarm, and equipped with twelve feet of cable. The cord circuits can be equipped with lamp or drop supervision of either the single or double type.

Double lamp supervision is recommended for this type switchboard, as greater facility is provided for handling the large number of lines.

With its low key shelf and large capacity, this switchboard presents a most attractive unit for any exchange desirous of giving the very best magneto service. This switchboard is designed to accommodate the addition of another position when traffic conditions require the use of a second operator.

The over-all dimensions are: depth 24 $\frac{3}{4}$ "", width 24 $\frac{1}{8}$ "", height 4' 11". The key shelf extends 10 $\frac{1}{2}$ " from the cabinet.

CAPACITIES

Code No.	Lines Wired	Cords Wired	Supervision	Approximate Shipping Weight
200-A	100	15	Drop	500 lbs.
200-B	150	15	Drop	500 lbs.
200-C	200	15	Drop	500 lbs.
200-AL	100	15	Lamp	600 lbs.
200-BL	150	15	Lamp	600 lbs.
200-CL	200	15	Lamp	600 lbs.

The 400 type Kellogg switchboard is a two position section developed for larger magneto exchanges.

In recent years, much progress has been made in building magneto switchboards that enable the operators to handle more calls quickly and easily, giving better service.

Kellogg engineers have incorporated various new ideas and improvements in this switchboard. It is arranged for four panels with drops of ten per strip, allowing an ultimate capacity of 400 lines, and wired for either 300 or 400 lines. Each position is also wired for 30 double drop or double lamp supervisory cord circuits, hand generator, generator switching key, night alarm and control keys, and equipped with 12 feet of cable extending from the cabinet.

In addition to the supervisory lamps associated with each cord pair, a large red pilot lamp is used which remains lighted until the operator has given proper attention to all disconnect and recall signals. Improvement of line and supervisory pilots, lamp signal key shelf supervision, and the distribution of rural lines in front of the local positions, naturally speeds operator's handling time. This allows more calls to be handled with greater care and ease.

The over-all height is 4' 11", width 3' 11 $\frac{1}{8}$ "", depth 34 $\frac{3}{8}$ "".

CAPACITIES

Code No.	Lines Wired	Cords Wired	Supervision	Approximate Shipping Weight
400-A	300	30	Drop	650 lbs.
400-B	400	30	Drop	650 lbs.
400-AL	300	30	Lamp	750 lbs.
400-BL	400	30	Lamp	750 lbs.

Kellogg

WIRE CHIEF'S TEST SETS

The Junior Test Cabinet



It is expensive for the smallest magneto or common battery exchange to be without the service of a test cabinet. It will earn its cost many times each year. Simplicity in design and construction is an outstanding feature of all Kellogg test sets.

The Kellogg Junior Test Set is for use in magneto and small common battery exchanges where a simple, compact, and inexpensive testing arrangement is all that is needed. It is assembled in a turret type cabinet of medium dark finished quarter-sawed oak, measuring 13½ inches high, 10 inches wide and 6 inches deep.

Standard practice includes a No. 267 Weston panel mounted voltmeter reading from 0 to 30 volts. If preferred, this same meter can be furnished with an additional scale of 0 to 3 volts graduated in ohms for direct reading resistance measurements.

Two trunks, one to the switchboard and one to a test shoe at the main frame, are wired on all sets. A third trunk for test clips can be had if desired.

Tests can be made through the switchboard or from the main frame "out" on the line side, or "in" on the switchboard side.

Tests can be made for shorts and ground on either side of the line, and also for condenser "kicks" on open or common battery line.

A ringing and listening key is furnished, but no operator's telephone. This test set will connect and operate with any standard telephone, which can be used as a wire chief's or operator's instrument.

An order wire key for connecting the wire chief direct with the operator, for handling the test trunk cords at the switchboard, is equipped on request.

All wiring for outside connections is terminated on binding posts and fuse bars, conveniently located in the rear of the cabinet. All apparatus and wiring is accessible from the rear through a full size removable panel.

When placing an order or asking for prices be sure to state whether the single or double scale voltmeter is desired, and if it is to be used with a magneto or common battery switchboard; also if the order wire key is wanted. When a separate trunk for test clips is desired, this should be stated, as well as stating whether four or five frequency ringing is used and a ringing key desired.

The Senior Test Cabinet



The senior test outfit is assembled in a turret type cabinet suitable for mounting on a desk or table and measures 12 inches high by 12 inches wide and 23 inches deep.

The voltmeter used is the Weston No. 24 type. This voltmeter sets flush with the face of the cabinet and has a scale of 0 to 30 and 0 to 150 volts. It has no ohm scale calibration, but the low scale has a resistance of 10,000 ohms and 50,000 ohms on the high reading.

When specified this cabinet can be equipped with the same circuit and apparatus used in the Junior type; however, standard practice includes a larger, more complete and flexible circuit arrangement. This circuit includes all the necessary apparatus and additional refinements for testing in the small and medium sized universal and common battery exchanges.

A resistance coil and shunt key is included for decreasing the resistance of the voltmeter to permit easy reading on low resistance line, or other circuits, under test. A key for connecting the voltmeter to the test circuit is standard equipment.

A key is furnished for cutting the voltmeter battery off and a voltmeter reversing key for testing for foreign currents. A voltmeter ground key is used for testing for grounds and foreign currents; a test trunk reversing key will locate grounds on either the tip or ring side of the line. Another key will set up the testing apparatus for both "in" and "out" test from the M.D.F. Keys for connecting common battery and magneto test trunks, a flash key for flashing the line lamp on common battery trunks, keys for ringing and listening and connecting talking battery to common battery are furnished.

Other refinements include a key for reading the test battery, a key for connecting a bridge or howler (the bridge or howler not furnished), and a continuous ringing key. A two-way trunk to the local board is furnished with a lamp signal and an answering key.

Standard equipment includes a complete operator's telephone of the desk stand type. It has an anti-side tone induction coil and head receiver with head band and suitable hook. A night alarm buzzer and cut off key is also standard equipment. All apparatus, including binding posts, is housed inside the cabinet, accessible through a full panel, hinged rear door.

No test shoe and cord for the main frame or trunk equipment for the switchboard are furnished with the cabinet. They are to be ordered separately.

General practice calls for single party ringing only; therefore, all orders or requests should state what type of ringing is used on the main switchboard, as a small additional charge is made for party line master keys.

Kellogg

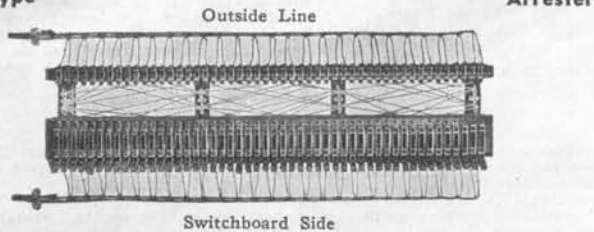
MAGNETO SWITCHBOARD APPARATUS

Arresters and Cross-Connecting Equipment

Every switchboard should be protected from lightning by some form of carbon lightning arrester for each incoming line. Where there is danger from electric light and power circuits, best practice calls for the use of a fuse or heat coil sneak current protector in addition to the carbon arrester which is intended as a protection against lightning. ALL PROTECTIVE APPARATUS SHOULD BE WELL GROUNDED. This ground should be made by means of a heavy insulated copper wire not smaller than 14 B & S gauge well secured to a water pipe or soldered to a ground cone such as shown on page 51.

Every exchange requires some means of cross connecting in order that subscribers moving from one part of town to another can do so without changing their old number. For example, this can be done by attaching the cable pair of drop No. 1 on the switchboard to the corresponding number on the arrester. The line wires or cables can likewise be permanently connected to the line wire side of the line terminals or distributing block, which is also numbered from 1 up. Then by attaching one end of a jumper wire to the line side of the arrester the other end can be connected to the terminal of any line selected; thus No. 40 drop can be made to work on No. 1, or No. 49 or any other line desired.

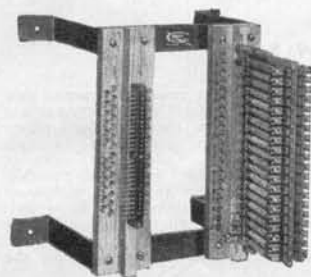
No. 6 Type



No. 6 type combination lightning arrester and cross connecting rack. This type ranges from 5 to 25 metallic lines or 10 to 50 grounded lines. It is so arranged that any line can be cross connected to any switchboard drop. Uses No. 11 fuses and carbon arresters. Over-all length 32 3/4 inches.

Code No.	Capacity	Overall Length	Shipping Weight
6	25 pair	32 3/4 inches	10 lbs.
9	10 pair	13 3/4 inches	5 lbs.

Code No. L 9

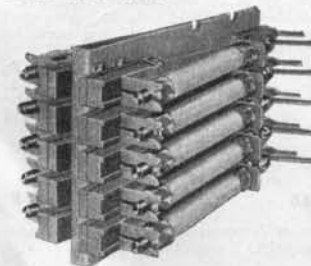


No. L 9

The L 9 is a small distributing frame designed to carry the H 36 or the No. 100 protector. Distributing strips of hard maple are mounted on two heavy steel brackets with sufficient room to make it accessible. Made in 20, 40, and 60 pair capacities. Width 9 1/2 inches, depth 15 inches. Furnished less protectors but including line terminals.

Code No.	No. of Pairs	Length, Inches	Weight
1050	20	12	1 lb.
1052	40	27	4 lbs.
1054	60	42	32 lbs.

Code No. H 36



No. H 36 Protector

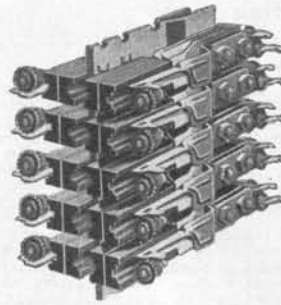
Designed to protect circuits where heat coils are not required. The fuses and lightning arrester carbons are mounted on metal plates of the same length as those used for heat coil protectors and may be mounted on the same frame.

Standard carbons, one plain and one grooved, and "U" shape celluloids .005 thick are provided.

Furnished with wood or composition fuses, the latter being approved by the Underwriters. Sections 1 1/2 inches wide and 5 1/2 inches deep.

Code No.	Section	Fuses	Length	Weight
1202	10 pair	A 45 composition	5 1/2 inches	20 lbs.
1203	20 pair	A 45 composition	10 1/2 inches	21 lbs.

Unless otherwise ordered 1 ampere composition fuses will be sent.



No. 100 Protector

Code No.	Section	Length	Weight
1230	10 pair	5 1/2 inches	2 1/4 lbs.
1231	20 pair	10 1/2 inches	5 lbs.
1232	No. 100 heat coils		
1234	No. 100 test plugs		

Code No. 100

Protector

This newest design protector is equipped with wire wound, self soldering heat coils and carbon block arresters.

When the heat coil melts or blows from an overcharge of lightning or electric current, it opens the circuit and grounds the line. To reset the protector simply push the switchboard spring back over the heat coil. No coil to change, turn or re-solder.

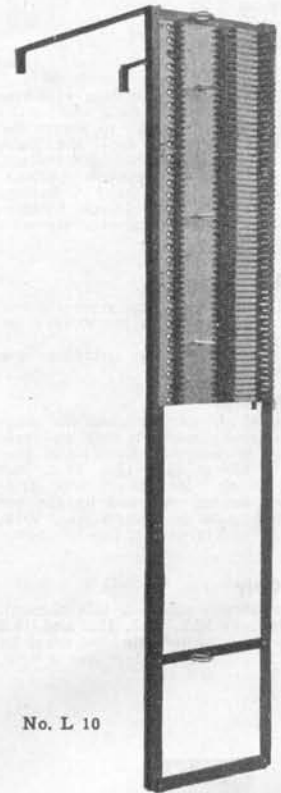
Sections are 2 inches wide and 3 1/2 inches deep.

Code No. L 10

Main Distributing Frame

This is a floor type of frame to be used in mounting H 51 Central Office Protector.

It is designed to replace the old wooden fire hazard wall frames, and consists of two vertical upright angle iron supports with cross pieces, wall braces, jumper rings for top and bottom and necessary bolts. Additions may be made to right or left side. The top cross piece is drilled to attach a cable bracket to the switchboard. The vertical uprights are 6 feet 9 inches in height. The frame is 16 inches wide and braces are 18 inches long. All steel parts are finished in aluminum.



No. L 10

Code No. H 51

Protector

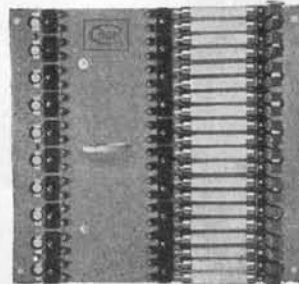
The H 51 Protector, in sections of 10 pairs each are installed as required.

H 51 Protector is a combination of line terminals and central office protector.

The base is of metal, aluminum treated.

Carbons ground on a copper ground strip that runs the length of the mounting plate, with provisions to make the ground continuous.

Fuses are composition type A 12 of 1 ampere capacity. Standard grooved carbons and "U" shape dielectrics are used.



No. H 51 Protector

Cat. No.	Description	Length, Inches	Width, Inches	Depth, Inches	Net Weight
1260	L 10 Frame 50 pair	61	12	18	16 lbs.
1040	H 51 Protector 10 pair sections	12	11 1/4	2	45 lbs.

Kellogg

MAGNETO SWITCHBOARD APPARATUS

Coils—Induction

See Page 6

Code No. 108 A



No. 108 A

An improved coil that replaces the 28 C. The No. 108 A induction coil is a universal local battery coil for use in magneto switchboards using dry cells or primary batteries. Terminals are provided for either soldered or screw connections. Replaces Nos. 14 A and 14 C. Net weight, 4½ ounces.

Code No. 7 D



No. 7 D

The No. 7 D induction coil is used on magneto switchboards when a third or tertiary winding is desired for monitoring. The primary has a resistance of 4 ohms, the secondary 90 ohms and the tertiary 435 ohms. Net weight, 12 ounces.

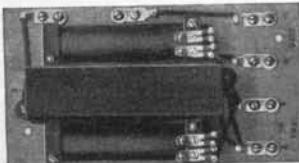
Code No. 81 A



No. 81 A

Similar in construction to No. 28 is the No. 81 A induction coil but used with battery feed coils where operator's sets on magneto switchboards are supplied from storage battery. The primary has a resistance of 4 ohms and the secondary 37.5 ohms. Net weight, 4½ ounces.

Operators Feed Coils



Nos. 3 A-4 A

These feed coils each consist of a 2 M.F. condenser in combination with two retardation coils one in each side of the circuit. They are wound to secure the proper impedance, to feed the right amount of current to the transmitter, and prevent cross talk between positions. Net weight, 1½ lbs. No. 3 A battery feed coil—for use with 24-volt battery. No. 4 A battery feed coil—for use with 32-volt battery.

Coils—Repeating

The repeating coils listed below replace all former types and represent our latest development in coils and are superior to any now on the market for both ringing and transmission efficiency. The cores are made of Silicon steel laminated, and the windings are completely enclosed in heavy cross-talk proof cases.

Ring and Talk Through



Nos. 19 A-20 A

The No. 19 A was designed for magneto cord circuits where a ring and talk through coil is required. Consists of four concentric windings 15.3, 17.1, 18.8, 20.9 ohms respectively. Mounts on relay strips or can be mounted on wood by the use of individual angle mountings Nos. 1012, 1013 and 1014. Net weight, less mounting, 2¼ lbs.

Talk Through Only

The No. 20 A was designed for magneto circuits where a talk through coil is required. Consists of 4 concentric windings 12.1, 13.7, 15.2 and 16.6 ohms respectively. Mounts on relay strips or can be mounted on wood by the use of individual angle mountings Nos. 1012, 1013, 1014. Net weight, less mountings, 2¼ lbs.

Mountings



No. 1014

No. 1012

No. 1013

Code No.
1012
1013
1014

Mounts On
Right
Left
Roof

Weight
6 ounces
6 ounces
6 ounces

Non Ring-Through



No. 16 A

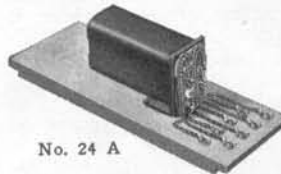
A non ring-through repeating coil formerly used in magneto cord circuits. Has 2 concentric windings 16 and 20 ohms. Used anywhere a non ring-through coil is desired for wood mountings. Net weight, 3 lbs. Height, 3¾ inches. Width, 3¼ inches. Depth, 2½ inches.

Phantom and Drainage Coils

(For Complete Information On Repeating Coils, Write for Bul. No. 206)

Proper Protection for These Coils Listed Under Arresters in Supply Section

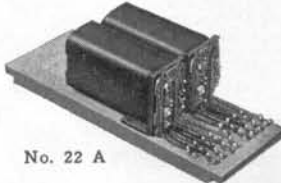
Code No. 24 A Repeating Coil



No. 24 A

A new coil with extremely low transmission loss for use with phantom circuit or for the termination of metallic lines which are continued as grounded or one wire circuits. The core is laminated nickel iron alloy which permits high efficiency on both talking and ringing circuits. Windings are perfectly balanced. This coil is provided with a maple base 10¾ inches by 4 inches for convenient mounting. Terminals are brought out to numbered solder-base. Replaces Kellogg 17 F and 18 A and B repeating coils. Height overall 3¼ inches. Weight packed for shipping, 6 lbs.

Code No. 22 A Repeating Coil



No. 22 A

A double coil consisting of two coils of the No. 24 A on one base. This arrangement is particularly convenient for phantom circuits and is economical of space. All connections are brought out to numbered soldering connections on the base. Base 10¾ inches by 4 inches. Height overall 3¼ inches, weight packed for shipping, 8 lbs.

Code No. 21 A Repeating Coil

This coil has the same windings as the No. 24 A but is furnished without the maple base. Requires a standard Kellogg relay mounting as shown in the preceding column. This coil is recommended only when there are standard Kellogg relay mounting strips or when space is at a premium. Length, 4¾ inches; width, 2¾ inches; height, 1¾ inches. Weight packed for shipping, 3 lbs.

Insulating Transformer



No. 19 B

The 19 B transformer is well balanced and has a break down test of 7,500 volts. Can be used either as an insulating transformer or drainage coil on telephone lines paralleling high tension lines. It is furnished without cover or base and can be mounted as desired. Net weight, 16¼ lbs.

Condensers

See Page 6

Kellogg condensers are manufactured by the most modern process and are of the best materials obtainable. Special tin foil and paraffin paper are used in the construction of all condensers, rather than the metallized paper process, which is not satisfactory for telephone use because of its high resistance.

The tin foil type of construction is more expensive, but is thoroughly reliable and free from trouble and is the only condenser that will withstand high frequency currents, such as auto, ignition and radio work. It is well known that where an ordinary condenser fails the installation of a Kellogg will prevent further trouble.

Kellogg is prepared to furnish condensers for special work providing the quantity is large.

Condensers for Cord Circuits

Code No. 68

½ M. F.

No. 68 is a ½ M.F. condenser being 3¾" high, 1½" wide and 1½" thick. Arranged for wood mounting. Net weight, 6 ounces.

Code No. 67

1 M. F.

No. 67 is a 1 M.F. Condenser using the same can as the No. 68 and arranged for wood mounting. Net weight, 6 ounces.

For best cord circuit transmission 2 M.F. condensers are recommended.

Code No. 66

2 M. F.

No. 66 Condenser is a 2 M.F. of the same dimensions as the No. 67 and 68. Arranged for wood mounting. Net weight, 7 ounces.

Code No. 64

2 M. F.



No. 64

No. 64 Condenser has a capacity of 2 M.F. and arranged to mount on regular relay strip mountings. It is 2¾" high, 1½" wide and 1½" high. Standard for Kellogg magneto boards. Net weight, 6 ounces.

Kellogg

MAGNETO SWITCHBOARD APPARATUS

Condensers—Power



Nos. 24, 25

Code No. 24

½ M.F.

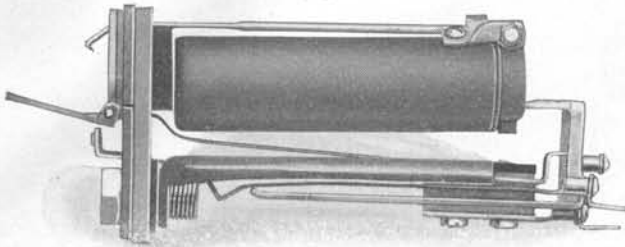
For a ½ M.F. high break down condenser the No. 24 is recommended. It is used in the Kellogg No. 36 type pole changer. Net weight, 11 ounces.

Code No. 25

1 M.F.

For a 1 M.F. high break down condenser the No. 25 is recommended. It is used in the No. 9, 23 and 30 dry battery pole changers. Net weight, 12 ounces.

Combined Drops and Jacks



Jack

The jack is of the single line spring construction with a chafing knife edge drop circuit contact. This simple construction makes possible the use of an extra strong combined tip and restoring spring.

The sleeve line conductor uses the frame of the jack and the sleeve thimble provides a long surface contact. This sleeve thimble is of the removable type, permitting easy replacement when the thimble has become too badly worn for proper operation.

Night Alarm

The regular night alarm spring is mounted on the jack, which simplifies construction and maintenance. The alarm does not close.

Drop

The drop shutter has punched hinge construction, using a stationary hinge pin which is a part of the shutter. There is no loose pin to work out. When the new shutter is released, it falls to a 65° angle. The new hinge construction provides a durable adjustment of the drop.

Mounting

The new drops with mountings can be placed in any board.

The Kellogg Combined Drop and Jack is extremely sensitive and will fall reliably with a minimum of current, will give a good clean rattle and its mechanism is designed so drop will restore reliably, no matter how badly the plug may be worn.

The Jack springs catch the plug firmly and are so tempered as to give fine service on the busiest toll and rural lines. All iron work is permanently protected against rust and scaling.

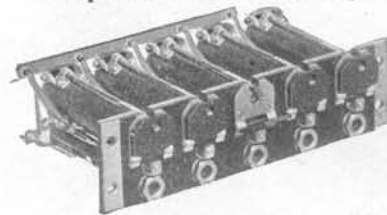
A drop and jack that will cause you no trouble. Practically no burnouts—the record is one in each five hundred and forty years of drop service.

Net weight, 5 per strip complete, 2½ lbs., 10 per strip 4 lbs.

In ordering give board number if Kellogg, otherwise name of manufacturer and dimensions of present mountings.

Code No.	Drop Resistance	Remarks
300 A	100 ohms	with armature contact
300 C	1000 ohms	with armature contact
300 E	500 ohms	with armature contact
301 A	100 ohms	without armature contact
301 C	1000 ohms	without armature contact
301 E	500 ohms	without armature contact

Drop and Jack Mountings



No. 257, Mtg. Complete with Drops and Jacks

Code No. 257

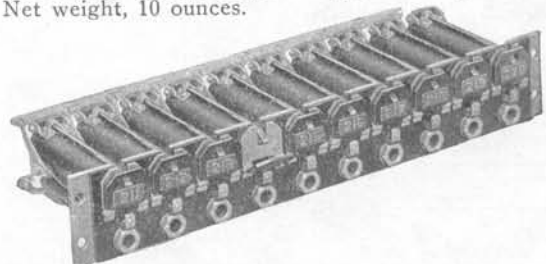
No. 257 mounting strip is the standard 5 per strip. It will mount the No. 29, 101 and 301 type D. & J. the mounting center is 6¼". Length of face 3¼", over-all length 6½". Width of strip 1¾". Net weight, 10 ounces.

Code No. 333

No. 333 mounting strip is of the same construction as the No. 257 except being drilled for adjustable code alarm contacts. Mounts Nos. 59, 100 and 300 type. Net weight, 10 ounces.

Code No. 395

No. 395. Similar to No. 257 except has 2-piece No. 28421 adapters to cover end spacing, thereby permitting flush mounting. Net weight, 10 ounces.



No. 329, Mtg. Complete with Drops and Jacks

Code No. 329

No. 329 standard 10 per strip mounting that mounts the Nos. 29, 101 and 301 D. & J. Mounting center is 10½", length of face 10¼", length over-all 11½". Width of strip 1¾". Net weight, 1 lb.

Code No. 426

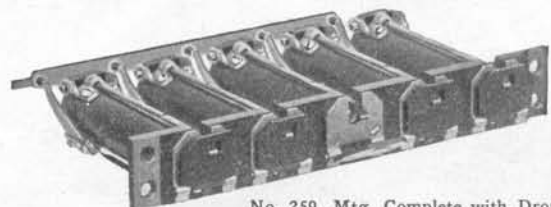
No. 426 standard 10 per strip for the Nos. 59, 100 and 300 type D. & J. Similar to No. 329 except drilled for adjustable code alarm contacts. Net weight, 1 lb.

Clear Out Drops

The Kellogg ring-off drop or clearing-out drops as they are sometimes called, are similar in design and embody all points of excellence found in the Kellogg line drops. They are sensitive. Shutters are forced to fall. Drops are of rustproof construction and are fitted with contacts for night alarm or pilot lamp signals, the same as are the drops used in the line circuits. Net weight, 5 per strip complete 2¼ lbs., 8 per strip 2¾ lbs.

In ordering give board number if Kellogg, otherwise name of manufacturer and dimensions of present mountings.

No. 51 E drop is standard for all types Kellogg magneto board. The drop coil has a resistance of 500 ohms.



No. 259, Mtg. Complete with Drops

Code No. 259

The No. 259 is the standard 5 per strip mounting. It also mounts the 22 type. Mounting center is 6¼". Length of face 5¾", length over-all 6½", width of strip 1". Net weight, 2 ounces.

Kellogg

MAGNETO SWITCHBOARD APPARATUS

Drop Mountings—Continued



No. 433, Mtg. Complete with Drops

Code No. 433

The No. 433 is the standard 8 per strip mounting. It also mounts the 22 type. Mounting center $10\frac{1}{4}$ " length of face $10\frac{1}{4}$ " length over all $10\frac{1}{4}$ ". Net weight, 10 ounces.

Combined Ringers—Drops and Jacks

Combined ringers and drops for use in switchboard work where a drop shutter is not sufficient to signal the operator can be furnished.

The No. 3 A has a resistance of 1000 ohm, the No. 3 D 1600 ohm, and the No. 3 E 2500 ohm.

No. 141 mounts in same space as standard 5 per strip combined drop and jack mounting. Mounting center $6\frac{1}{4}$ " length of face $5\frac{3}{8}$ " width $3\frac{1}{2}$ ". Mounts 2 combined ringer and drop with 2 jacks.

No. 455 mounts in same space as standard 10 per strip drop and jack mounting. Mounting center $10\frac{1}{4}$ " length of face $11\frac{3}{8}$ " width of strip $1\frac{3}{4}$ ". Mounts 3 combined ringers and drops also 3 jacks.

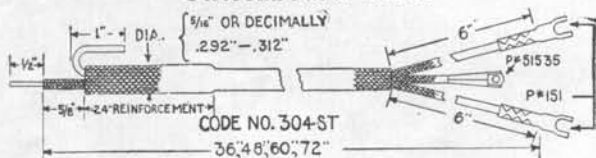
Number Plates



No. 10

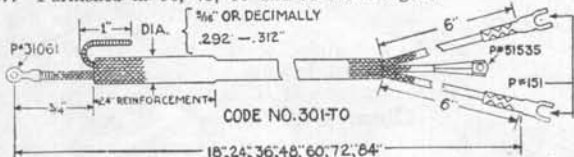
No. 10 is the standard number plate for combined drop and jacks and clear out drops. Carried in stock numbered 1 to 999 inclusive.

Switchboard Cords



The No. 304 ST steel and tinsel cord solves the problem of reducing the high cost of switchboard cordage. It consists of two spiral steel conductors wrapped over braided tinsel. The round steel conductors are practically unbreakable giving the cord a wonderfully long life, while the tinsel lowers the resistance of the steel conductors, making a most satisfactory cord from a transmission standpoint. Diameter at plug end $\frac{5}{16}$ inch, the decimal equivalent of which is .292 to .312 inch. Tracer colors tip white, sleeve blue. Fits Nos. 3, 17, 42, 70, 130 and 187 plugs.

The No. 353 ST steel and tinsel cord fits Kellogg plug 168; also W. E. No. 47. Furnished in 36, 48, 60 and 72 inch lengths.



Code No. 301-TO is our standard two conductor tinsel cord having a diameter at the plug end of $\frac{3}{16}$ inch, the decimal equivalent of which is .292 to .312 inch. Fits Kellogg plugs Nos. 3, 15, 17, 42, 35, 70, 109, 112, 130, 168 and 187. Tracer colors tip conductor white, sleeve blue. Used on 9-B switchboard.

Plugs



Actual Size

No. 42

Code No. 42

No. 42 is the standard two conductor switchboard having a sleeve diameter of .2495 inch. Net weight, 2 ounces.



$\frac{5}{16}$ - 16 AM. NAT.

Actual Size

No. 247

Code No. 247

The No. 247 replaces Western Electric No. 47-A plug. Sleeve diameter .250. Length of body from shoulder to tip 1.206. Net weight $1\frac{1}{4}$ oz. Over all diameter .563. Net weight, 2 ounces.

Cord Fasteners



No. 4

No. 4 cord fastener, brass dull finished.

No. 5 cord fastener, steel hot tin plated.



No. 5

Cord Hooks



No. 2

No. 2 brass cord hook made from No. 11 B & S gauge brass. Bent to form loop to prevent cord from slipping off.

Cord Weight

No. 9 cord weight is made of steel and lead, having a weight of approximately 10 ounces.



No. 9

Generators

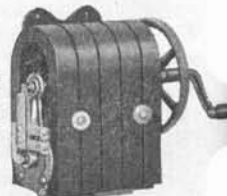
(See Page 7)

The secret of the Kellogg generator's extraordinary strength lies not only in its permanent magnet, but in the superior design of its revolving electro-magneto or armature, upon which the wire is wound. It is just as important that this revolving magnet be massive in size as it is to have a large and powerful magnet, for it is absolutely useless to have the permanent magnet furnish more magnetism than the electro-magnet has capacity to use. Most important of all, however, is the necessity for a liberal amount of winding space to accommodate a large coil of magnet wire in which the ringing current is generated.

The Kellogg armature is of the shaftless type, which permits the use of the correct amount of iron and wire to secure the most powerful results.

Repeated laboratory and exchange tests of the most severe character prove time and again the uniformly superior service of Kellogg generators.

All danger from rust and from short circuits caused by small pieces of loose nickel scale are eliminated by giving the generator magnets a heavy coating of special blue paint. The gear, pinion, field and screws are all nicked plated, dull finish.



No. 72

Code No. 72

The No. 72 is the standard 5 bar generator used in magneto switchboards. Net weight, 9 lbs.

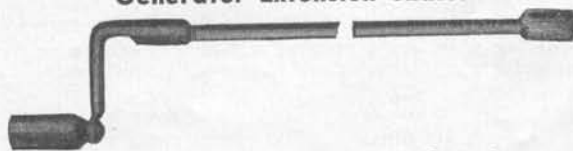


No. 63

Code No. 63

The No. 63 is the inverted 5 bar generator used with extension shaft. Net weight, 9 lbs.

Generator Extension Shafts



Code No.

9
14
17
15911

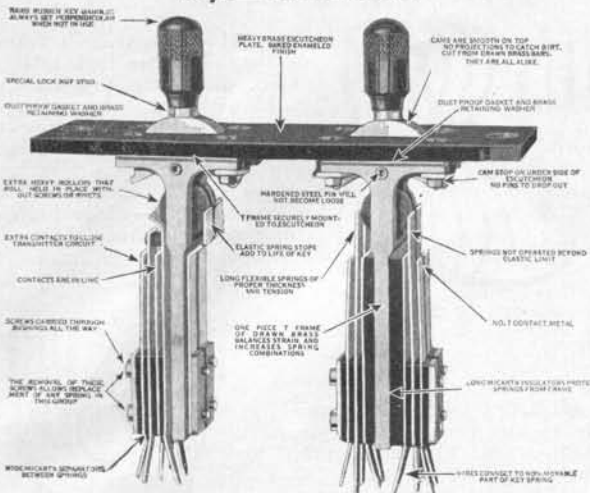
Length

24 inches
12 1/4 inches
20 1/2 inches
Generator Crank

Kellogg

MAGNETO SWITCHBOARD APPARATUS

Keys—Switchboard



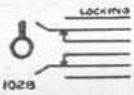
Kellogg cam keys are built on a perfect center line or T frame, making it possible to assemble any number of spring combinations of either the locking, restoring or both locking and restoring types, which are always interchangeable with each other.

All bushings, insulations and rollers are made from Kellite Dilecto, which will not carbonize or break down under high voltage and which will stand up under the most rigid and persistent usage.

The T frame, typical of Kellogg cam keys, and the assembling screws are made of brass. The springs are made of German silver with special contacts, eliminating the possibility of corrosion and giving perfect talking and ringing connections in every operation.

The scientific basis on which Kellogg keys are constructed, with proper distribution of wear, insures long life and positive contacts.

Keys mounted on escutcheons should be ordered so that the first key mentioned on the order will be the key nearest the operator when installed, and so that all locking keys are farthest from the operator. Net weight, 3½ ounces.



Single Locking

Code No. 1028

Two sets of make and break contact. For switching purposes.



Code No. 1042

Three sets of make contacts. Listening key with battery contacts.



Double Locking

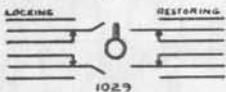
Code No. 1002

Two sets of make contacts on each side.



Code No. 1030

Two sets of make and break contacts on each side.



Locking and Restoring

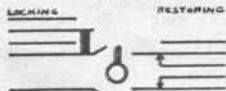
Code No. 1029

Two sets make and break contacts on restoring as well as locking side.



Code No. 1041

Two sets make contacts locking side, two sets make and break contacts restoring side. Ringing and listening.



Code No. 1043

Three sets make contacts locking side two sets make and break contacts restoring side. Ringing and listening with battery contacts.

Single Restoring

Code No. 1033

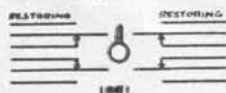
Two sets make and break contacts. Ringback key.



Double Restoring

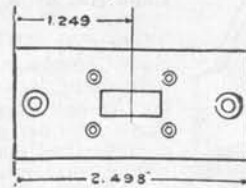
Code No. 1031

Two sets make and break contacts each side. Ring and ringback.



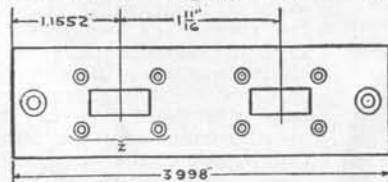
Key Escutcheons

Escutcheons are made of brass black enameled. Mounting screws not furnished unless specified then charged for extra.



Code No. 1021

An individual escutcheon mounting any of the No. 1000 Type Keys.



Code No. 1012

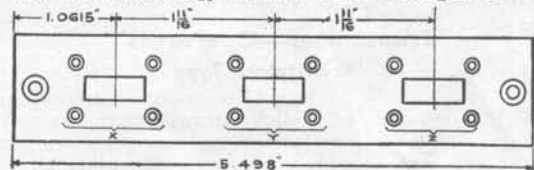
No. 1012 escutcheon is 1 1/8 inches in width. Arranged for 2 keys.

Code No. 1013

No. 1013 escutcheon is 1 inch in width arranged for 2 keys.

Code No. 1026

No. 1026 escutcheon is 1 3/8 inches in width. Arranged for 2 keys.



Code No. 1030

No. 1030 escutcheon is 1 3/8 inches in width. Arranged for 3 keys.

Code No. 1065

No. 1065 escutcheon is 1 3/8 inches in width. Arranged for 2 keys less hole Z.

Keys—Old Style

On old switchboards where only one or two new keys are required the following old style keys are listed. However, it is recommended that if more keys are to be replaced, a complete set of new style "T" frame keys listed above be ordered and that the keyshelf be cut to fit the new style escutcheon which mount side to side.

Single Locking

Code No. 28

Same spring combination as No. 1028.

Single Restoring

Code No. 33

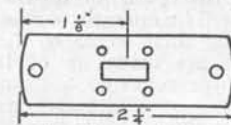
Same spring combination as No. 1033 key.

Locking and Restoring

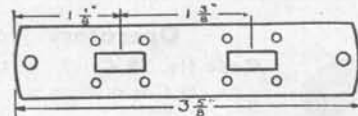
Code No. 41

Same spring combination at No. 1041 key.

Escutcheons—Old Style



These escutcheons are made of brass nickelplated.



Code No. 301

No. 301 single mounts old style keys only. 3/4 inches in width.

Code No. 303

No. 303 double mounts old style keys only. 3/4 inches in width.

Kellogg

MAGNETO SWITCHBOARD APPARATUS

Receivers—Operators'

Code No. 65 A



No. 65 A Receiver
With No. 12 New
Type Wire Headband

The No. 65 type operator's receiver, combining real efficiency and permanent, satisfying service, with feather-like weight, is an equipment that will be appreciated by the operator and manager alike.

The total weight of receiver and band is but 3.9 ounces. The total width is $2\frac{1}{8}$ inches and the depth or thickness $\frac{7}{8}$ inches. Terminals are entirely enclosed within the shell; solid horseshoe permanent magnet, and electro-magnets of high grade wire wound on cores of special magnet iron. The head band is arranged to permit the receiver to be adjusted in any position that is most comfortable to the wearer. Resistance 100 ohms. Standard for all magneto switchboards. Shipping weight, $\frac{1}{2}$ lb.

Code No. 46 A

No. 46 A is the standard formerly used on all magneto switchboards. Resistance 140 ohms. Replaced by 65 A receiver. Shipping weight, 12 ounces.



No. 46 A Receiver
With No. 2 Leather
Covered Flat Spring
Steel Headband

Transmitter—Operators'

Breastplate Type



No. 1076, Breastplate
Transmitter

The world renowned talking qualities of Kellogg transmitters are not lacking in Kellogg operators' transmitters, which is very important, as patrons and neighboring exchanges judge the character of service of any plant very largely by how well they hear the operator.

The No. 1076-C transmitter is standard for all types of switchboard using the breastplate type of transmitter. The breastplate is constructed of aluminum, white celluloid veneered; the mouth-piece is of hard rubber, heavily white enameled. Transmitter shell is aluminum. Net weight, 10 ounces.

Suspended Type

The No. 55-C suspended type transmitter is standard for all types of switchboard using this style of transmitter. Furnished in black enamel finish and with two 72-inch transmitter cords. Net weight, 18 ounces.



No. 55 C

Cords—Operators'

Kellogg operator cords speak for themselves in giving long, uninterrupted service. The operator cords on Kellogg switchboards are well proving their worth to thousands of users.

The operator cords are made up of 18 strands of tinsel, twisted together in three ropes of 6 strands each, which are covered with two wraps of silk, impregnated with moisture-proof compound. Over this, is placed one braid of plain cotton and then a brown mercerized overall braid.

Operators' Handset

Code No. 39 C

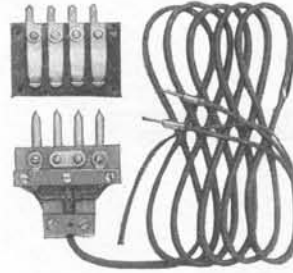
No. 39 C is equipped with a cord to fit the No. 145 operator's plug and is used for an auxiliary operator's set on boards equipped with breast plate transmitter sets. No. 39 C may be furnished on order to fit No. 182, No. 139 and No. 25 operator's plugs. It is the same as the regular NON-POSITIONAL Masterphone handset except that it has separate conductors for the transmitter and receiver. Shipping weight, $1\frac{1}{4}$ lbs.



No. 39 C

139 and No. 25 operator's plugs. It is the same as the regular NON-POSITIONAL Masterphone handset except that it has separate conductors for the transmitter and receiver. Shipping weight, $1\frac{1}{4}$ lbs.

Operators'—Cords—Jacks—Plugs



No. 110-OR Cord
No. 146 Plug No. 43 Jack

No. 110-OR cord is a two-conductor, 72 inches in length.

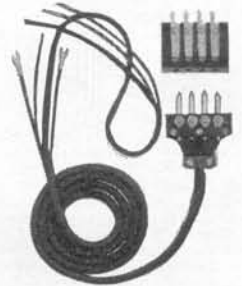
No. 146 plug four-conductor plug with two center prongs strapped to permit using two-conductor cord for suspended type transmitter. Net weight, 3 ounces.

No. 43 jack — four individual conductors. Face dimensions, $2\frac{1}{4}$ inches by $\frac{1}{2}$ inch. Net weight, 3 ounces.

No. 111-O cord has four conductors for breastplate type operator's set. Overall length, 68 inches.

No. 145 plug four-conductor plug for breastplate type operator's set. Net weight, 3 ounces.

No. 43 jack — four individual conductors. Face dimensions $2\frac{1}{4}$ inches by $\frac{1}{2}$ inch. Net weight, 3 ounces.



No. 111-O Cord
No. 145 Plug No. 43 Jack

No. 26-OR cord has two conductors, 72 inches in length. Diameter .285.

No. 107 plug — two-conductor. Net weight, $2\frac{1}{2}$ ounces.

No. 237-OR cord — same as No. 26-OR except smaller in diameter. Fits No. 75 plug.

No. 75 plug same as No. 107 plug except equipped with bushing to take smaller diameter cord.

No. 24 jack — two-conductor, face diameter $1\frac{3}{8}$ inches. Takes No. 75 or 107 plug. Net weight, 4 ounces.

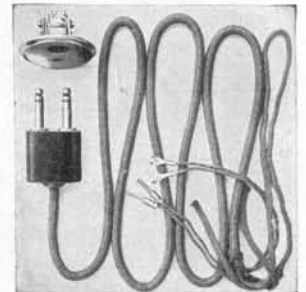


No. 26-OR and No. 237-OR Cords
No. 107, 75 Plugs No. 24 Jack

No. 67-O cord has four conductors. Overall length, 68 inches. For breastplate operator's set.

No. 25 plug — four-conductor. Fits No. 57 jack. Net weight, 3 ounces.

No. 57 jack — four-conductor. Face diameter 2 inches. Net weight, 4 ounces.

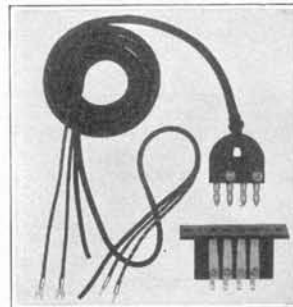


No. 433-O Cord
No. 25 Plug No. 57 Jack

No. 439-O cord has four conductors. Overall length 68 inches for breastplate type operator's set.

No. 182 plug—four-conductor. Fits No. 325-A jack. Net weight, 3 ounces.

No. 325-A jack — four-conductor, face dimensions $1\frac{1}{8}$ inches by $3\frac{1}{2}$ inches. Net weight, 1 ounce.



No. 439-O Cord
No. 182 Plug No. 325-A Jack

Kellogg

MAGNETO SWITCHBOARD APPARATUS

Tools



No. 8—Flat wrench for adjusting drop armature.



No. 9—Flat wrench for adjusting ringers.



No. 10—Flat wrench for adjusting ringers.



No. 12—Socket wrench for sleeve of comb. D. & J. and removing No. 72 type relay shell with hexagonal nut.



No. 22—Screwdriver for hollow screws on plugs.



No. 42—Switchboard cable skinner.



No. 16—Socket wrench for stop nuts on No. 1000 type cam keys.



No. 50—Plug gauge for gauging worn No. 42 plugs.



No. 51—Jack gauge for gauging worn jacks taking the No. 42 plug or plugs of similar size.



No. 67—Key spring adjuster.



No. 68—Burnisher for cleaning and polishing contacts.



No. 71—For removing transmitter and receiver caps from F 27-C Masterphone handset.

Switchboard Cable



Cable with Lead Colored Paint Braid



Cable with Lead Sheath

Kellogg switchboard cables are manufactured from the best grades of selected raw materials by Kellogg's specially designed machinery, and are furnished in several styles and sizes.

The wires are tinned, thoroughly annealed, and are of not less than 98 per cent pure copper, evenly coated with tin. Only the best grade of silk and cotton wrappings are used for insulation. After the insulation is applied the twisted pairs are formed into a cable and covered with several wraps of heavy manila paper and then thoroughly saturated with beeswax. This cable is regularly furnished with double silk and cotton insulation over tinned wire, with cotton over all braid covering, saturated with lead colored fireproof paint.

A standard color code is used so that each pair of wires can be identified. Small sizes, such as 11, 21 and 26 pairs can be shipped in boxes up to 500 foot lengths. Above 500 feet, reels are required. Large sizes, such as 41, 51 and 102 pairs can be shipped in boxes up to 250-foot lengths. Above 250 feet, reels are required. When cable reels are furnished they will be charged for. Full credit will be allowed for their return in good condition, prepaid to Kellogg's factory.

ROUND TYPE—22 B & S GAUGE

Code No. Lead Colored Fireproof Paint Over Braid	No. of Pairs	Diameter
65 A	11	25/64
149 A	13	13/32
127 A	16	13/32
42 A	21	13/32
112 A	26	13/32
63 A	51	5/8
62 A	102	1 1/16

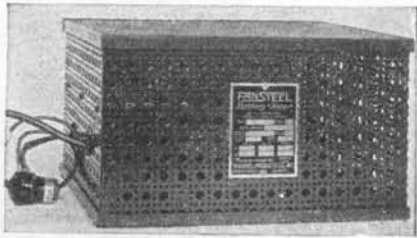
LEAD COVERED—22 B & S GAUGE

Code No.	No. of Pairs	Diameter Inches	Thickness of Sheath
148 L	13	13/32	1/16"
144 L	16	13/32	1/16"
121 L	21	33/64	1/16"
147 L	26	13/32	1/16"
146 L	51	5/8	3/32"
145 L	102	1 1/16	3/32"

Kellogg

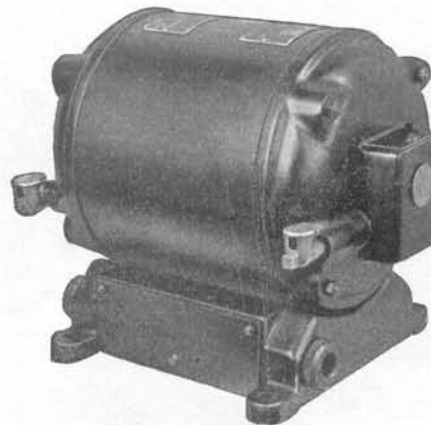
MAGNETO POWER APPARATUS

Fansteel G-30 Rectifier



The Fansteel G-30 Rectifier has been developed for float charging small P.B.X., toll and Central office batteries. Many small Rectifiers will not charge at low rates due to the absence of suitable adjustments. The G-30 is arranged to overcome this difficulty, being provided with transformer taps and a 27 point adjustable resistance for regulating the charge in close steps from a few milliamperes to 0.5 ampere.

The use of a small closely adjustable Rectifier of this type will assist considerably in prolonging the life of the small battery required for the switchboards mentioned above. The G-30 is a full wave Rectifier arranged to operate from 115 volts, 60 cycles single phase alternating current and furnishes a filtered direct current of 0.05 to 0.5 amperes. It is a very compact unit, being only 6¼" high, 12" wide, 8½" deep, and weighs 68 pounds packed for shipment.



Holtzer-Cabot MG-125 Magneto Motor Generator

A new, greatly simplified type of magneto motor generator. It operates without slip rings, brush holders or the centrifugal cut-out used on older types. A condenser in the circuit eliminates all these parts and the care they require. Since there is no brush rigging a very high insulation resistance has been maintained. Both generator and motor are combined as a single unit. All the windings are stationary. The rotating member has the usual induction type rotor; the generator is a rotating magnetor.

This simplification is largely due to the use of an "ALNICO", a new magnetic iron.

The wool packed lubricating device makes it possible to run the motor generator 3000 hours without renewal of oil. Connections are made in the base through bushed Bakelite holes. Conduit or BX may be used. Installation is very simple since the unit is self-contained.

The motor generator operates from a 60 cycle circuit and the motor may be wound for either 110 or 220 volts. It delivers 20 watts at 80 volts and when running under full load requires no more current than an ordinary tungsten lamp.

Causes absolutely no radio interference. Length 12", height 8½", width 7½". Shipping weight 62 lbs.

PIECE PARTS

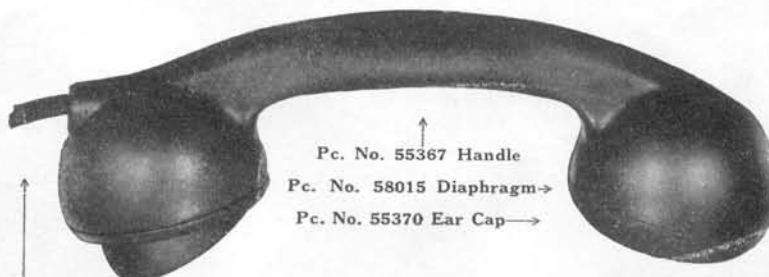
KELLOGG
Masterphone



Pc. 57340 Transmitter



Pc. 55919 Receiver



Pc. No. 55367 Handle

Pc. No. 58015 Diaphragm →

Pc. No. 55370 Ear Cap →

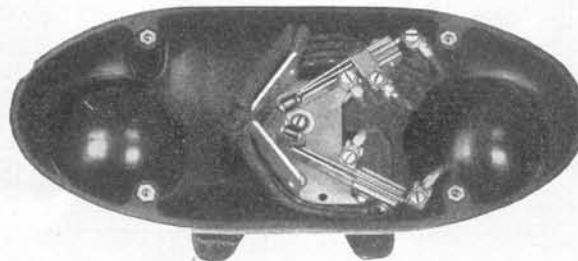
F673-G Cord



Pc. 55369
Transmitter
Mouthpiece Ring



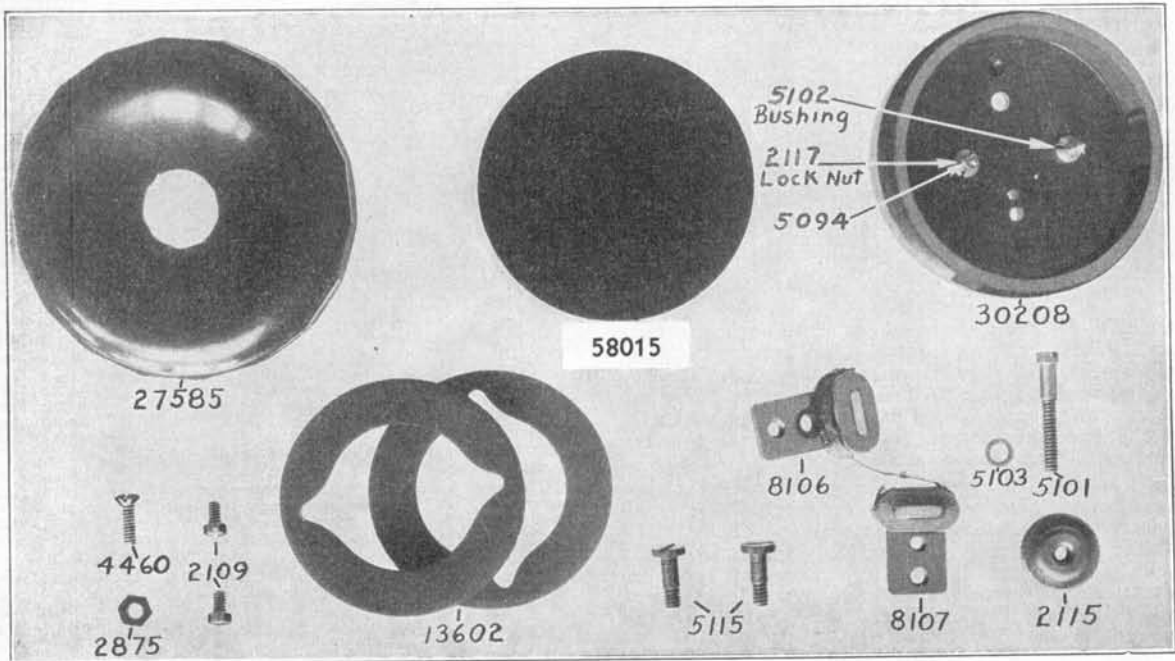
Pc. 57623
Transmitter
Mouthpiece



Pc. No. 55398 Moulded Kellite Shell Base only

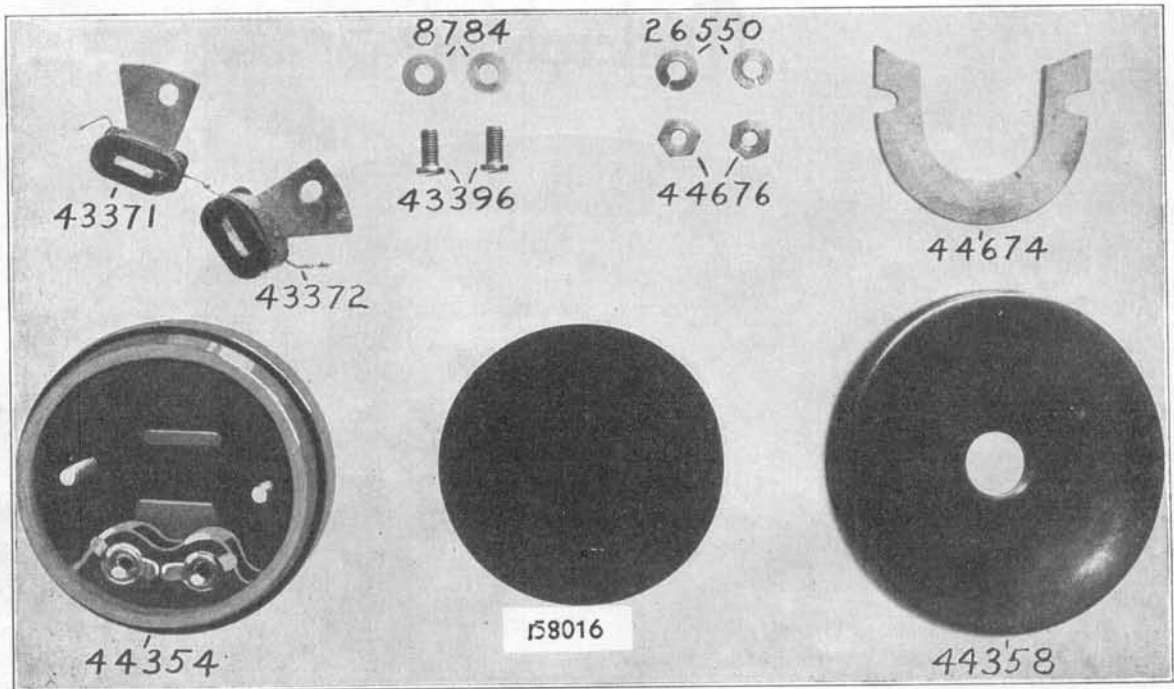
Kellogg

PIECE PARTS



No. 46 A Receiver

Parts are interchangeable with No. 14 A receivers except when used on No. 1016 test set, in which case use Pc. No. 5086 cap and Pc. No. 5085 shell to fit special hook switch on test set.



No. 65 A Receiver

On Pcs. Nos. 43371 and 43372 the resistance of 50 ohms per coil must be specified. Magnets, coils, diaphragm, screws, washers and nuts interchangeable with No. 54 A receivers. Cap for 54 A receiver is Pc. 43360. If new body is desired order Pc. 44354 and Pc. 49358 together with yoke No. 45171, which will make the 54 A receiver into a No. 65 A.

Kellogg

A Few Reasons for the Long, Active Life and Dependability of Kellogg Instruments

Kellogg Hookswitches are of the short compact type with removable hook. The simple, sturdy design makes this a highly efficient hookswitch. The contact metal springs are of the correct length for proper tension and are equipped with special contacts. The escutcheon plate is heavily black enameled. Kellite is used exclusively for insulation purposes.

Kellogg Receivers are of the bipolar non-adjustable type. Permanent magnets are of the correct form and of lasting strength. Pole pieces are made of the best carefully annealed iron and held securely by bolts that fasten the supporting bridge in place. The diaphragm made of perfectly flat ferrotype metal of the proper thickness is held in accurate position to respond freely and accurately to the voice currents. In design the Kellogg Receiver secures loudness and clearness of tone and excellent articulation.

Kellogg Transmitters are of the solid back reverse type. Specially designed to give the best results in long distance as well as local service. The diaphragm is made from hard drawn aluminum with carbon retaining cup formed in the center of its face. Highest grade carbon of correct size, insuring minimum battery consumption, is used and will not pack. The small number of parts, accurately made from the best material obtainable insures long life and minimum chances for trouble.

Kellogg Condensers for magneto telephones have a one-half M. F. capacity. This allows the receiver to be off the hook without crippling the ringing service of the heavily loaded lines.

Kellogg Induction Coils are wound to the proper resistance, so they will step up the out-going currents the necessary amount to carry them over long distance lines without distortion, but will not reduce the strength of the incoming voice currents.

Kellogg Ringers do not need adjusting. They are the most sensitive ringers made. Cores and armatures are made from the highest grade carefully annealed iron. Spools are carefully insulated and wound with Kellogg enameled copper wire. The thin strip of metal between pole pieces and armature prevents any possible tendency towards sticking. Length of stroke and armature air gap are correct, and remain so during the entire life of ringer. Gongs are made of the best material obtainable, rich in tone, will not crack or become dead through service; they are of the concentric type, and heavily black enameled.

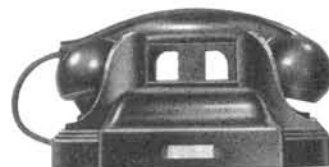
Kellogg Generators are "built like a watch." They have a larger armature and greater winding space than other types known of. The field magnets are built with great care. Kellogg's method of forming magnets, shapes them accurately without injury. The magnet bars are thoroughly protected against rust. The end plates are made of pressed brass and all springs properly insulated. Wheels and gears are accurately cut and machined. The generator handle is strongly constructed of one piece. The minimum number of parts used insures great reliability and long life in all types of service.

MAGNETO MASTERPHONES

No. 900-A

Desk **Masterphone**

Convertible to
Common Battery



The 900-A Masterphone is an unusually attractive handset for use with any standard magneto bell box arranged for a 3-conductor circuit. Low, compact, and beautifully designed, it has a particularly strong subscriber appeal. It consists of a molded Bakelite handset with the famous Kellogg NON-POSITIONAL transmitter and a molded Bakelite base. There are no cradle lugs and it can be easily picked up with one hand. Removing four screws in the base plate exposes the interior and all cord connections. The Masterphone handpiece has a solid handle with two heavy brass bar conductors through its center, thus eliminating cord ends and adding a reinforcing feature which practically eliminates breakage.

Both the transmitter and receiver are of the capsule type with heavy bronze contact clips which positively grip the bar conductors when the units are inserted. The NON-POSITIONAL transmitter assures a constant carbon contact and flow of current between the two spherically shaped electrodes regardless of the position in which the phone is held. This patented construction guards against "dead" positions. The receiver assures the same high quality reception that has made Kellogg receivers the standard for years.

This set can also be used as a complete TRIAD circuit extension Masterphone by simply adding a 109-A local battery induction coil to the base. It can also be converted to a complete Combination Masterphone for common battery service by adding a condenser, induction coil and ringer to the space provided in the base. Shipping weight 5½ pounds.

950-LR Extension Desk Masterphone

The 950-LR Masterphone is the same as the 900 except that it is equipped with a 109-A closed core, local battery induction coil providing the TRIAD circuit with anti-sidetone feature. It is particularly recommended as an extension set for use with any standard desk set box containing ringer and condenser only. The TRIAD circuit and NON-POSITIONAL transmitter assure the finest transmission and reception. Shipping weight 6¼ lbs.

9830 Side Mounting Extension **Masterphone**

The 9830 side mounting extension Masterphone is an attractive, compact unit that supplies the answer to many installation problems. It consists of a black enameled steel housing, an all-purpose bracket, a switchhook, the 109-A induction coil, and the all-Bakelite Masterphone handpiece with the Kellogg NON-POSITIONAL transmitter. The special bracket permits a wide variety of mounting positions. It can be positioned on the unit in a number of ways to accommodate installations where other types of sets cannot be used such as under or on the side of desks, counters, tables, cabinets, etc. The 109-A local battery, closed core, induction coil in this set gives the added advantage of the TRIAD circuit which assures "quiet" conversations regardless of outside noises. Shipping weight 5 lbs.



9735 Side Mounting Masterphone

This is the same as the 9830 except that it has no induction coil. The 9735 side mounting Masterphone is an ideal telephone to use with your present desk set boxes in locations where the telephone must be out of the way. Like the 9830, this set can be installed in a variety of locations by changing the position of the bracket. Shipping weight 4 lbs.



No. F9827

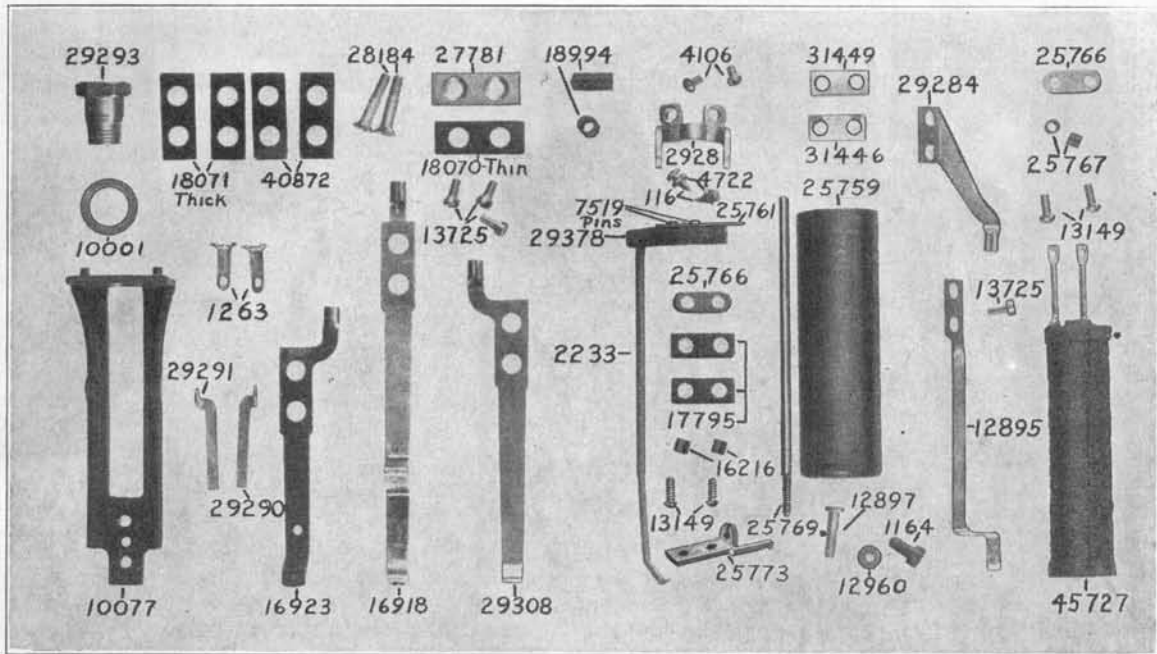
Extension **Masterphone**

The Kellogg F9827 Extension Masterphone is an ideal two-wire magneto unit, consisting of a small steel box and a molded Kellite handset. The F27-C handset is the same as that used with the No. 700-A Masterphone and is suspended from a specially designed hookswitch which assures positive action.

This unit is small, neat, durable and convenient, and gives perfect transmission and reception. Because of its small size, the F9827 set can be installed almost anywhere. A mounting space of only 4x5½ inches is required for this compact unit. The box is made of drawn steel, finished in durable black enamel. It contains the hookswitch, induction coil, condenser, and connecting rack.

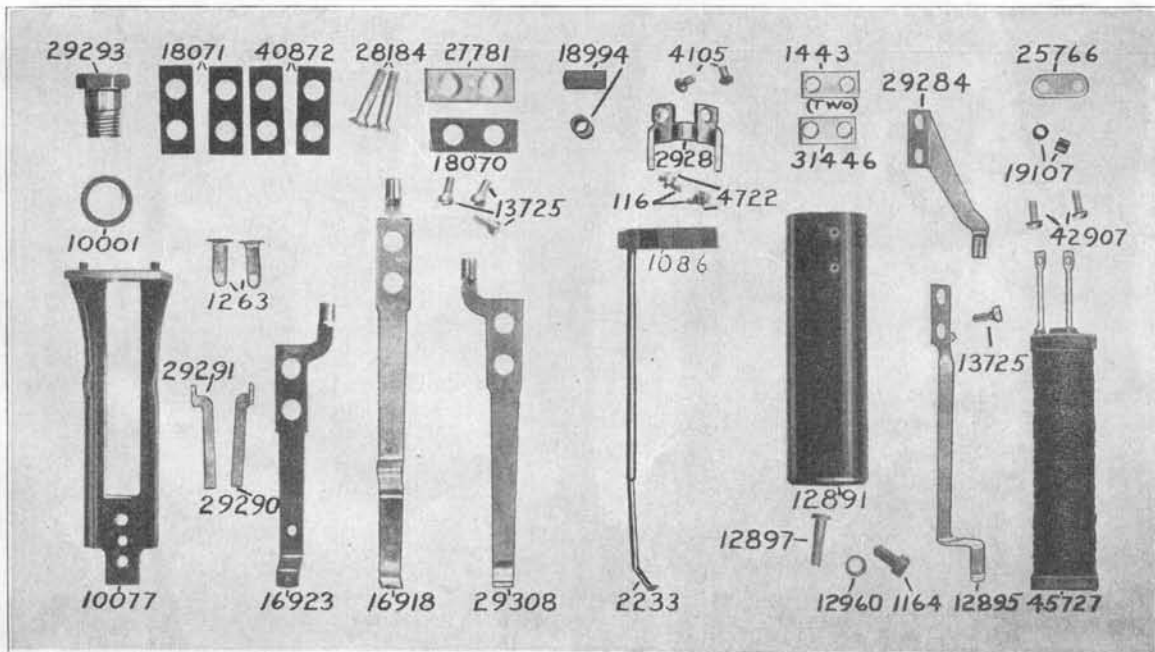
Kellogg

PIECE PARTS



No. 100 combined drop and jack. For mounting parts, see pages 35 and 36.

	Coil Codes
DJE	500 Ohms
DJC	1000 Ohms

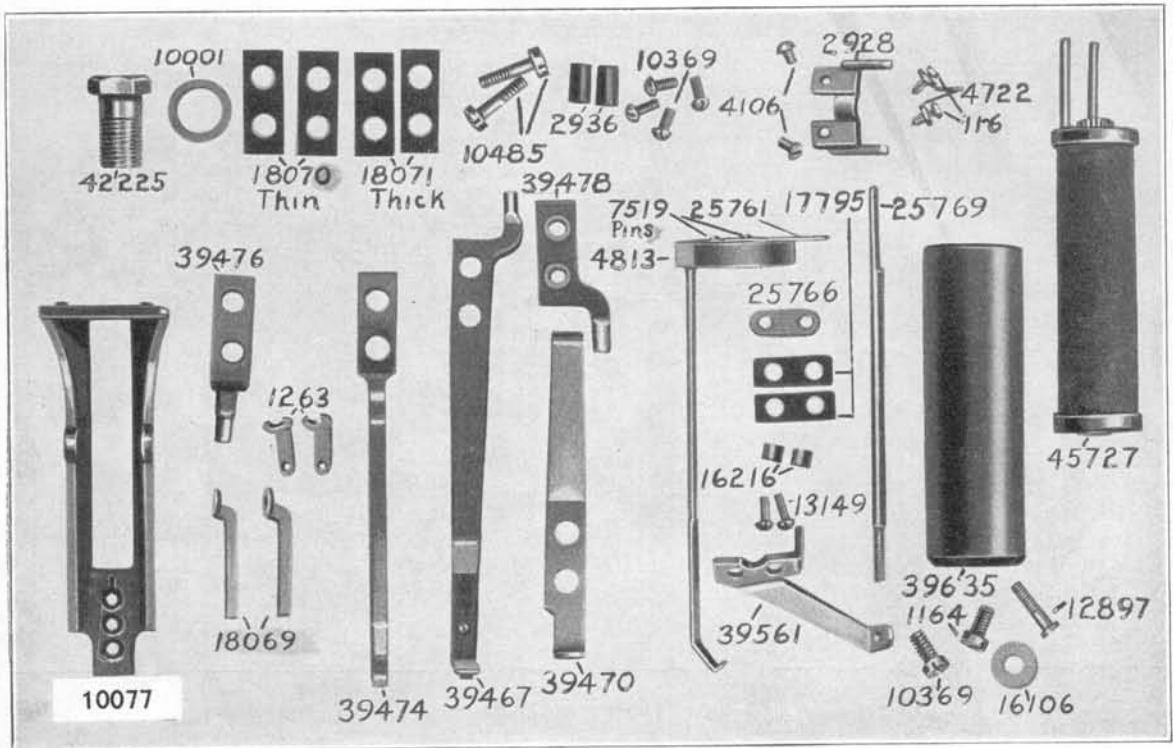


No. 101 combined drop and jack. Parts for drop shown above are same as used on No. 51 clearing out drop. For mounting parts, see pages 35 and 36.

	Coil Codes
DJE	500 Ohms
DJC	1000 Ohms

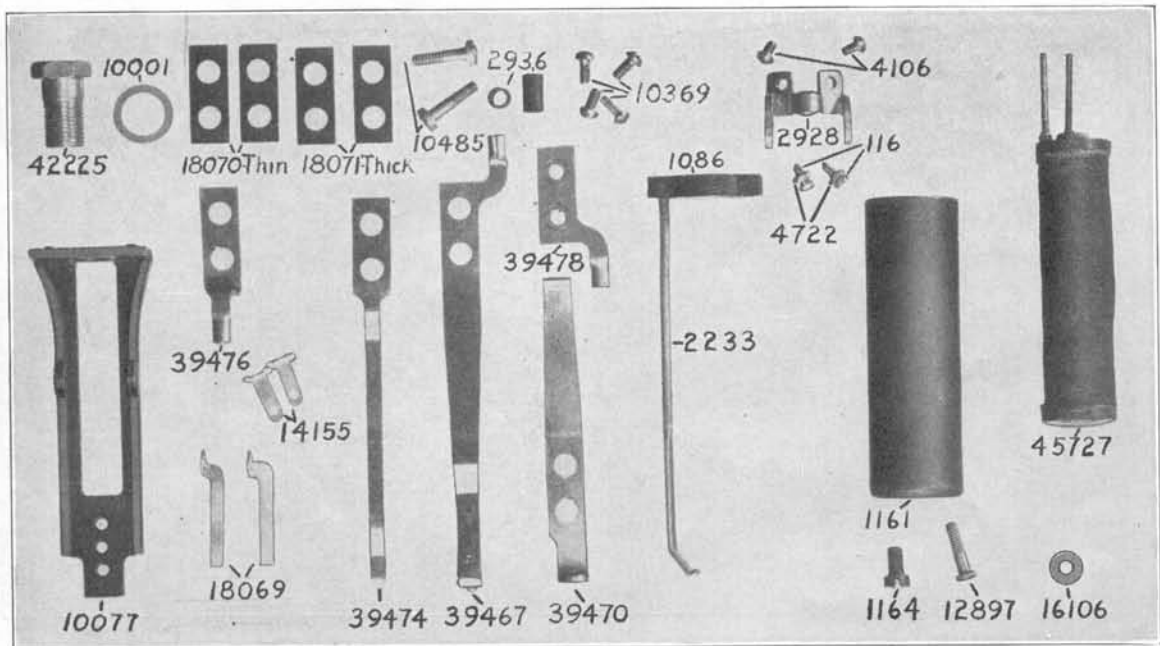
Kellogg

PIECE PARTS



No. 300 combined drop and jack.
For mounting parts, see pages 35 and 36.

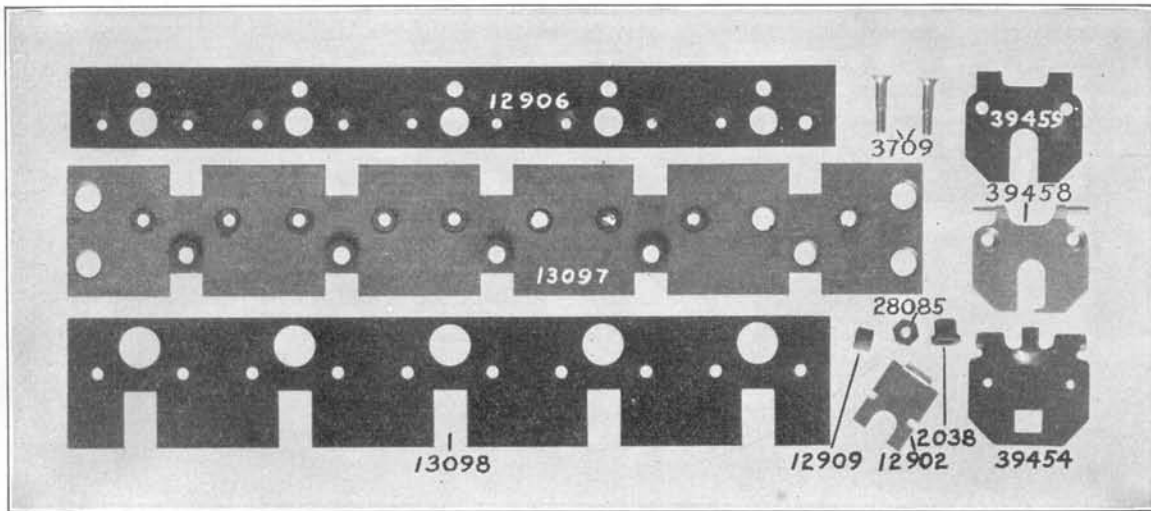
Coil Codes
DJE 500 Ohms
DJC 1000 Ohms



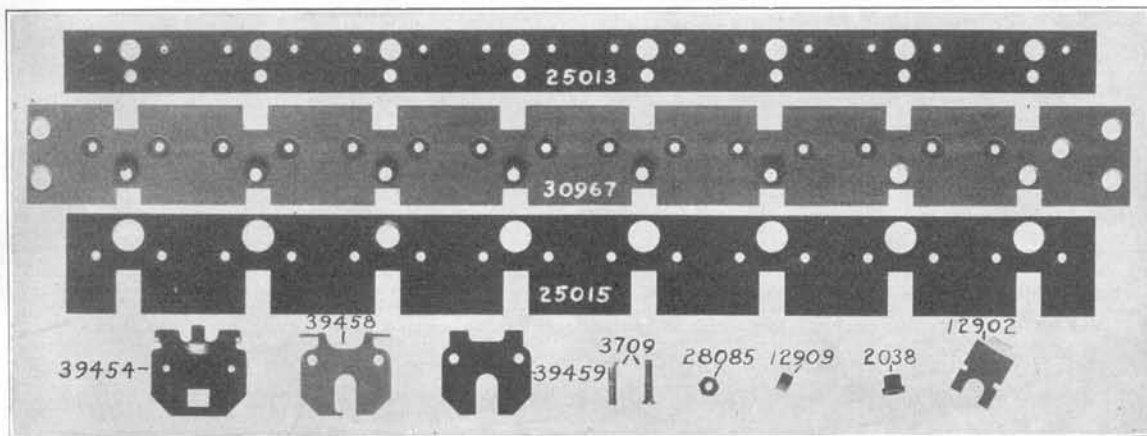
No. 301 combined drop and jack.
For mounting parts, see pages 35 and 36.

Coil Codes
DJE 500 Ohms
DJC 1000 Ohms

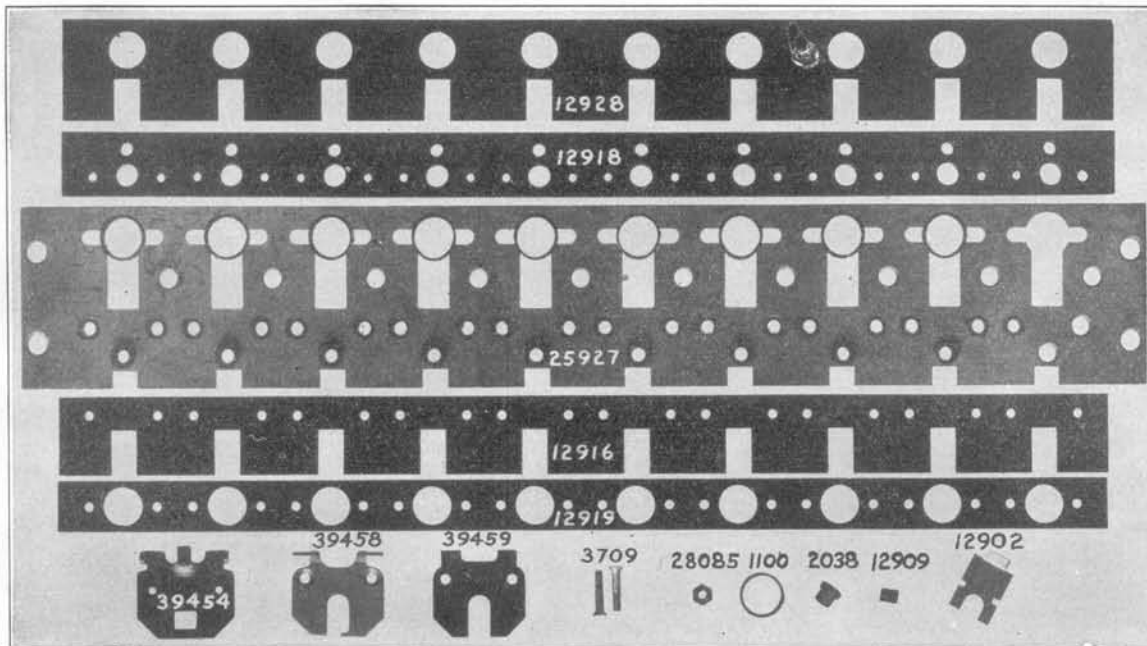
Kellogg



No. 259 drop mounting mounts Nos. 22 and 51 type drops



No. 433 drop mounting mounts Nos. 22 and 51 type drops

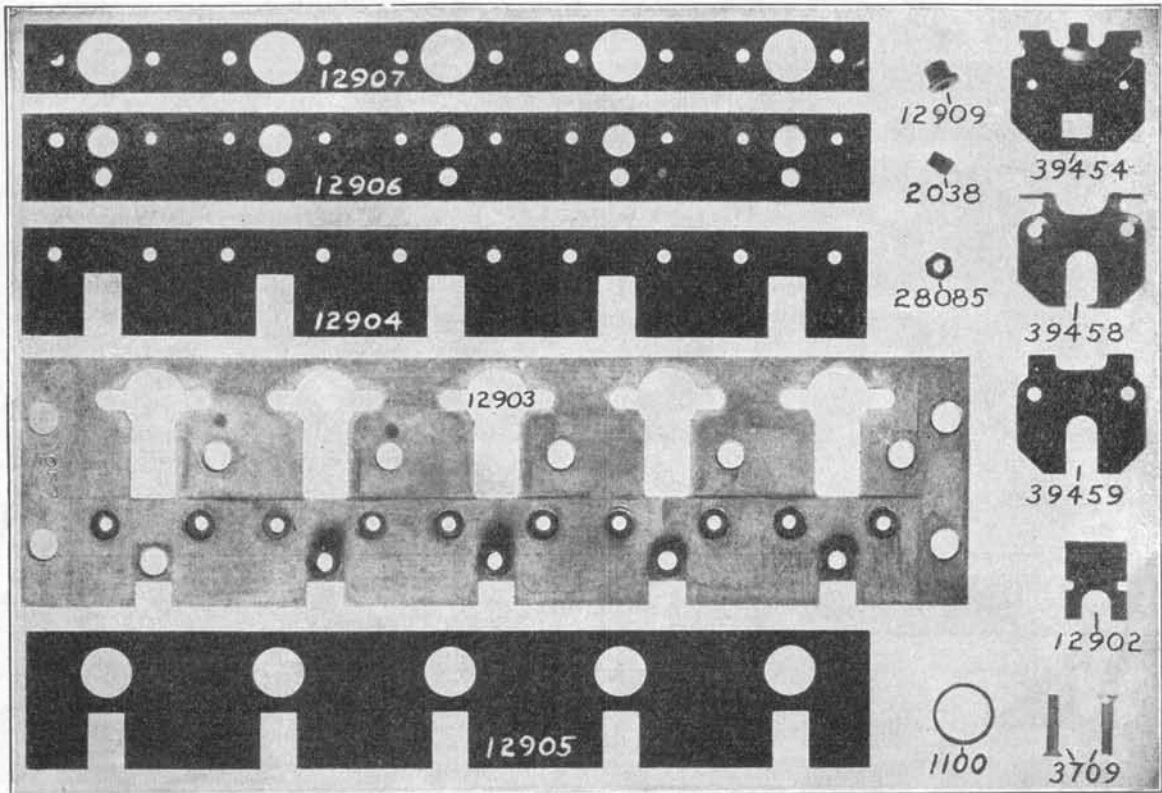


No. 329 drop and jack mounting mounts Nos. 29, 101, and 301 drop and jacks.

No. 426 drop and jack mounting uses same parts as the above except Pc. 29350 insulation instead Pc. 12928. Mounts Nos. 59, 100 and 300 drop and jacks with code ringing night alarm.

Mounting screws to mount above mountings to Switchboard can be secured by specifying Pc. 12995 screw.

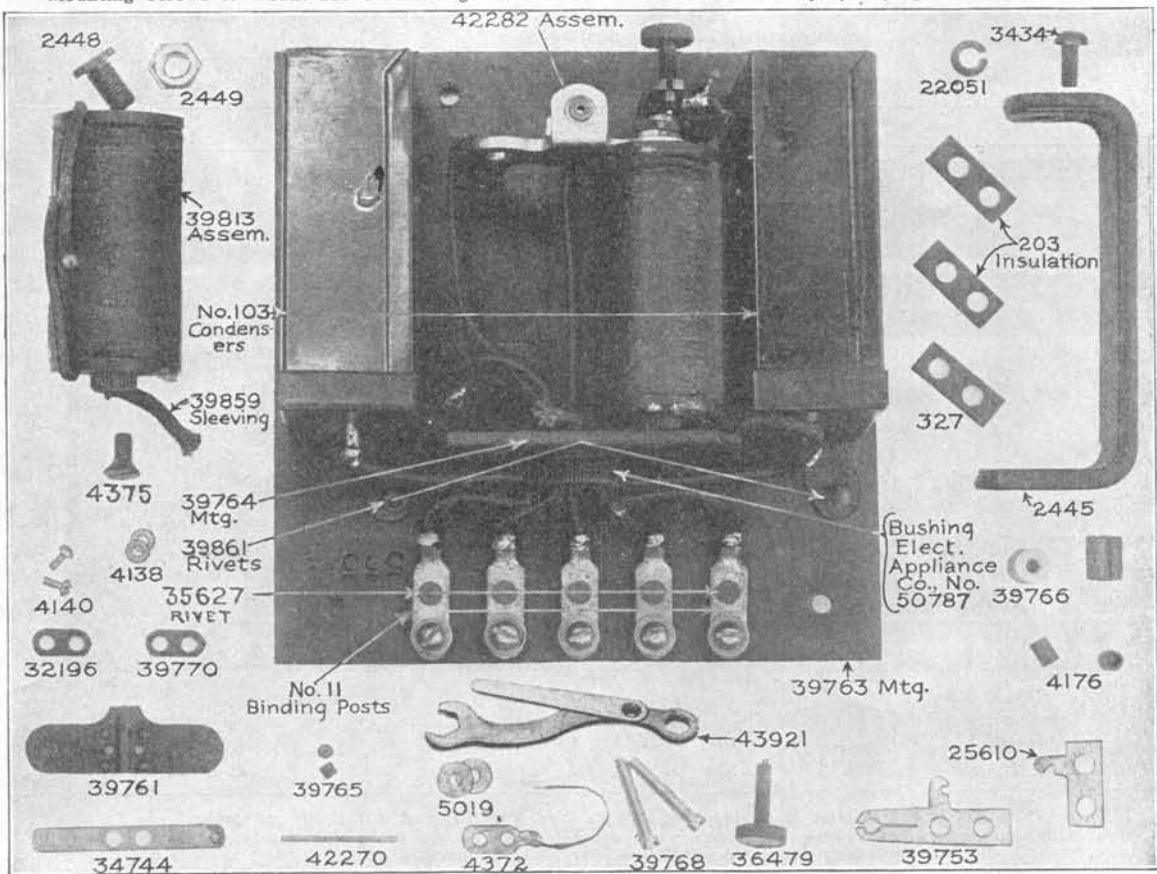
Kellogg



No. 257 drop and jack mounting mounts Nos. 29, 101 and 301 drops and jacks.

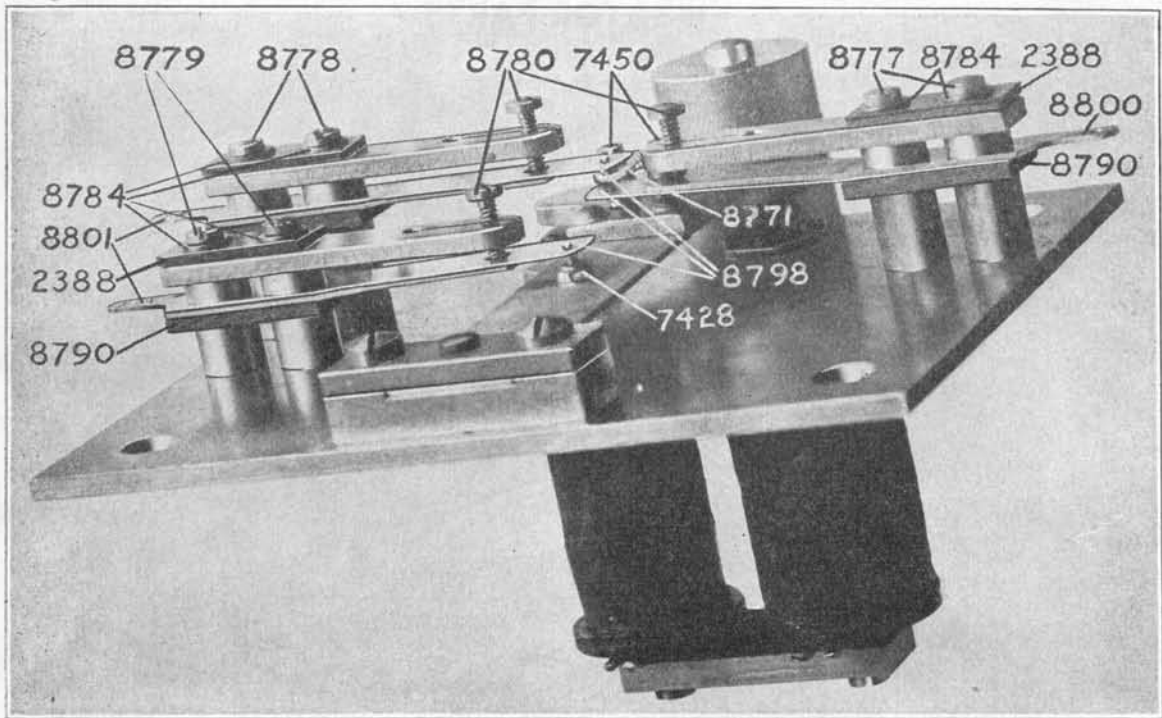
No. 333 drop and jack mounting uses same parts as the above except Pc. 25358 insulation instead 1295. Mounts Nos. 59, 100 and 300 drops and jacks with code ringing night alarm.

Mounting screws to mount above mountings to Switchboard can be secured by specifying Pc. 12995 screw.

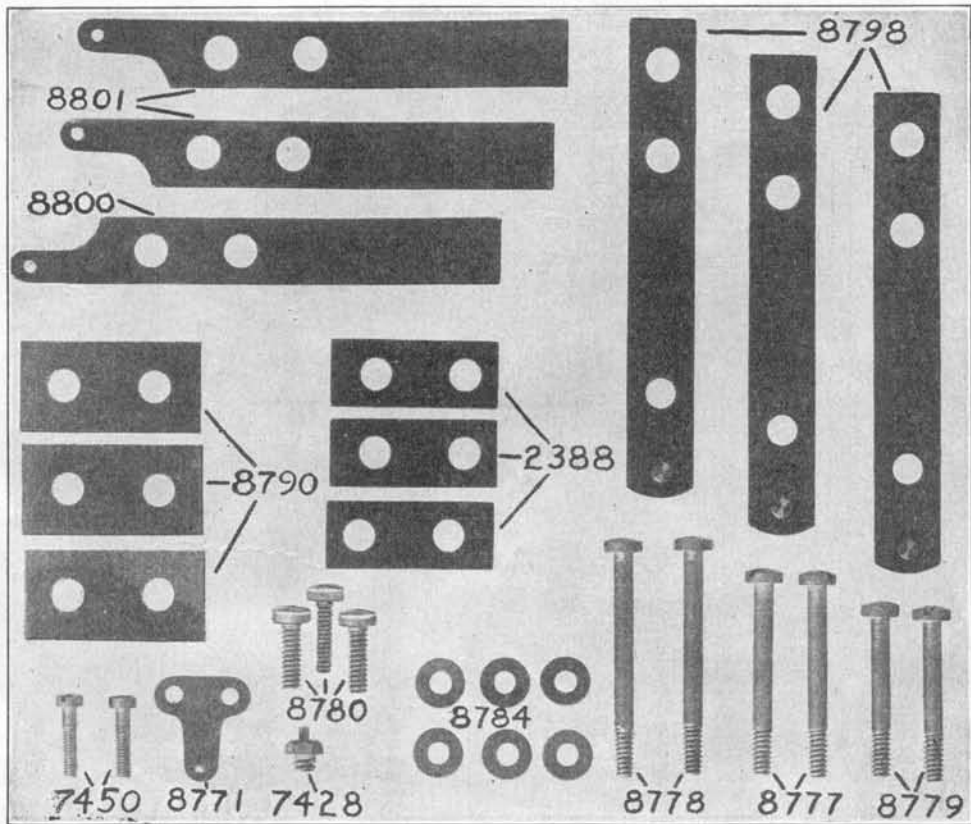


No. 555 Relay

Kellogg



Vibrator Assembly. Used on Nos. 13, 29, 36 A, 36 B and all harmonic pole changers.

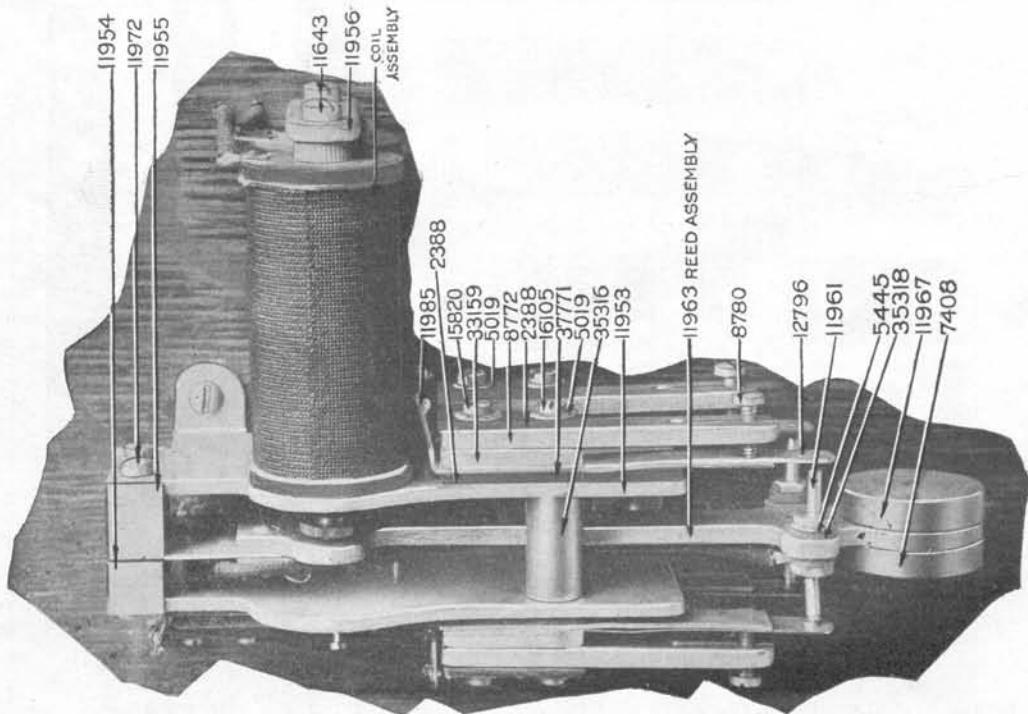
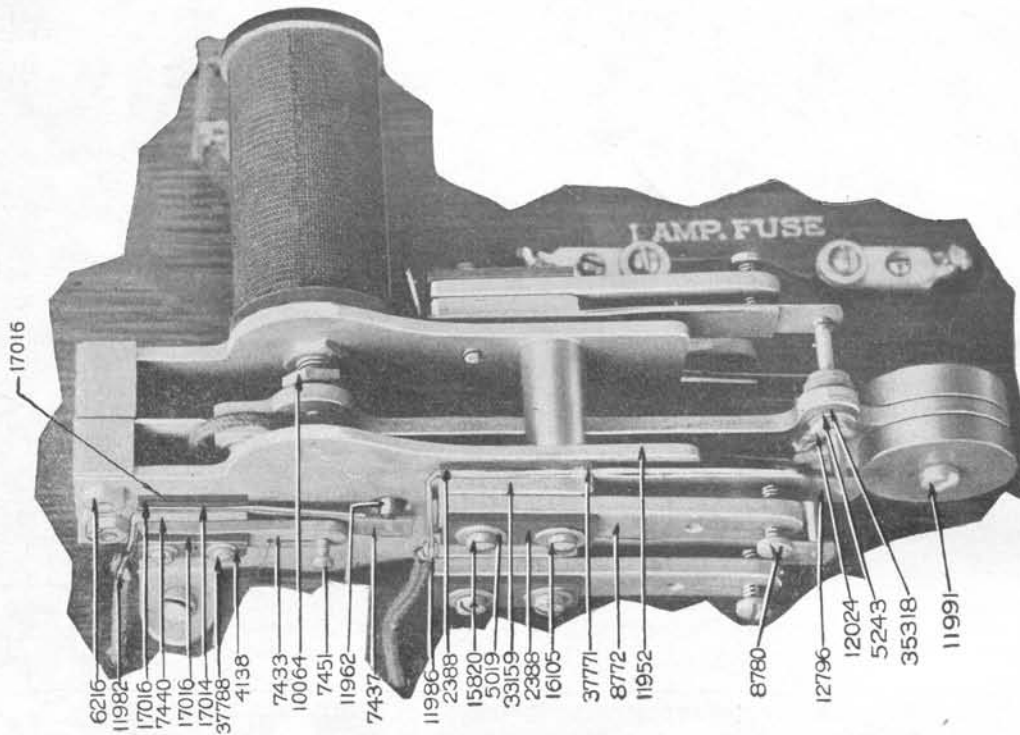


Vibrator Spring Assembly

Kellogg

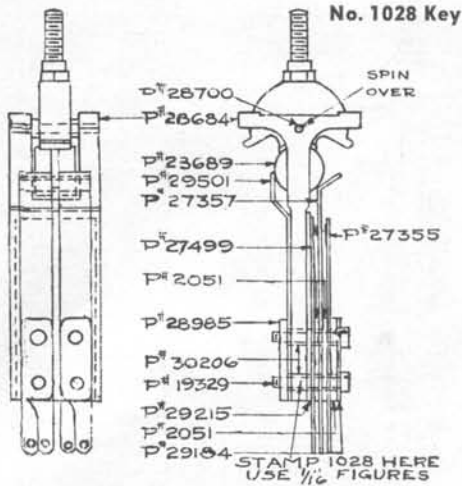
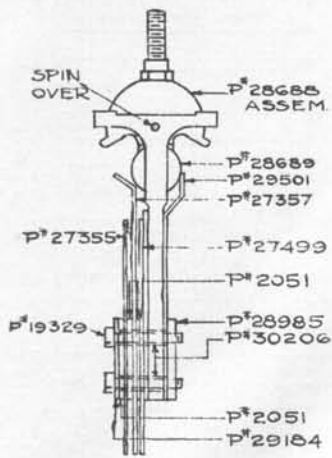
VIBRATOR PARTS

For Dry Battery Pole Changers and Electric Light Converters

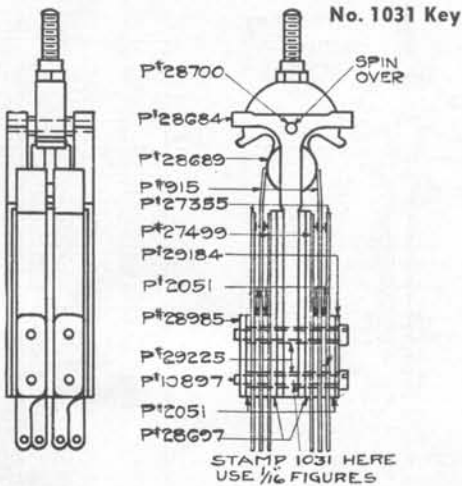
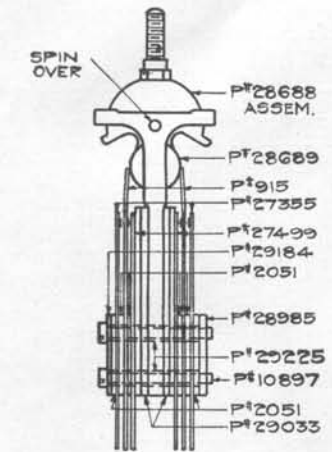


Piece numbers of parts for Nos. 9, 23 and 30 Pole Changers. Nos. 6 and 7 converters are the same. Nos. 6 and 7 converters use Pc. No. 35323 coil assembly. Nos. 9, 23 and 30 Pole Changers use Pc. No. 51060 coil assembly.

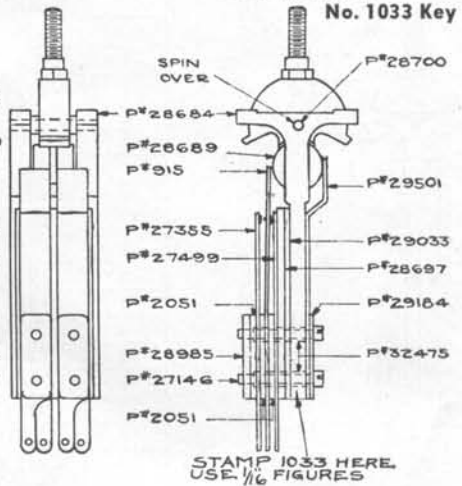
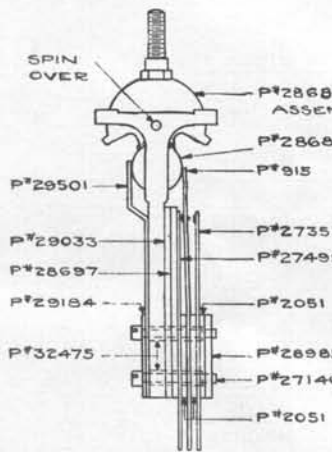
Kellogg



No. Pcs.	Pc. No.	Description
1	28684	Frame
1	28688	Cam assem.
2	28689	Roller
6	2051	Ins.
1	29215	Ins.
2	27357	Spg. with cont.
2	27355	Spg. with cont.
2	27499	Spg. with cont.
2	29184	Washer
1	28700	Pin
2	28985	Nut
2	29501	Springs
4	30206	Bushing
4	19329	Spec. screw



No. Pcs.	Pc. No.	Description
1	28684	Frame
1	28688	Cam assem.
2	28689	Roller
1	28700	Pin
12	2051	Ins.
2	28697	Ins.
2	29033	Ins.
4	915	Spg. with cont.
4	27499	Spg. with cont.
4	27355	Spg. with cont.
2	28985	Nut
4	29225	Bushing
2	29184	Washer
4	10897	Spec. screw



No. Pcs.	Pc. No.	Description
1	28684	Frame
1	28688	Cam assem.
2	28689	Roller
1	28700	Pin
1	28697	Ins.
1	29033	Ins.
6	2051	Ins.
2	915	Spg. with cont.
2	27355	Spg. with cont.
2	27499	Spg. with cont.
2	29184	Washer
2	32475	Bushing
2	28985	Nut
2	29501	Springs
4	27146	Spec. screw



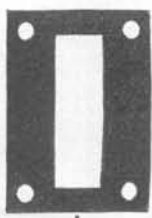
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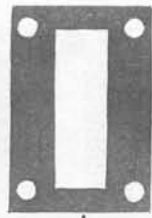
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29023



32690



47557



28870

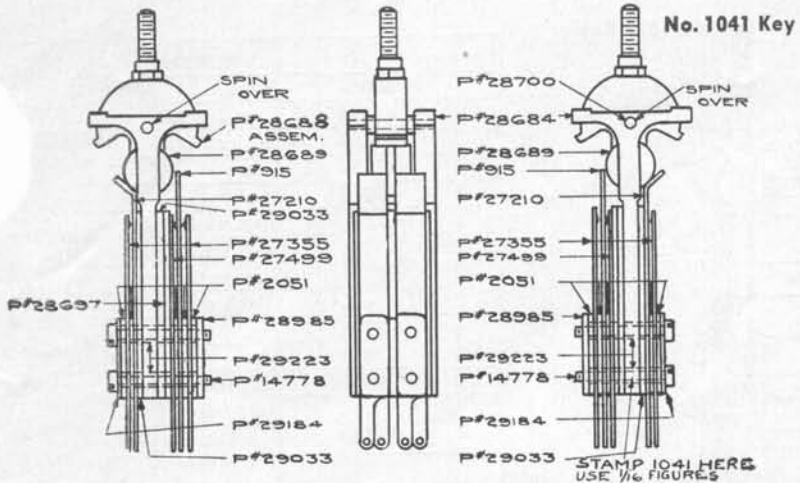


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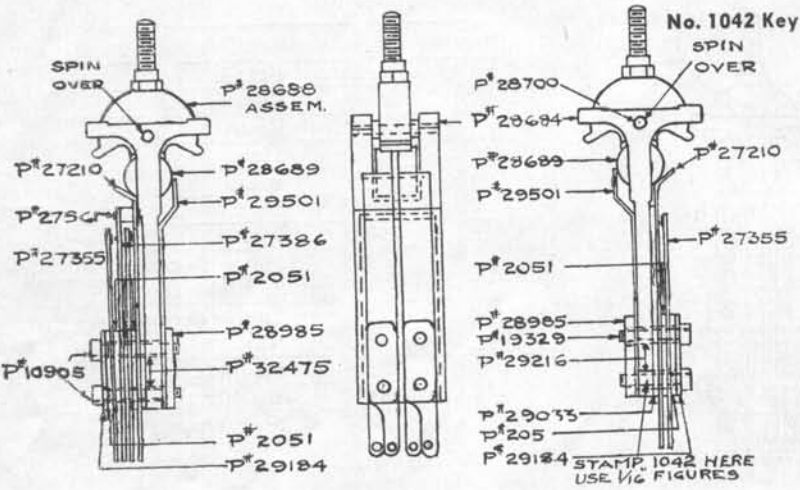


28868

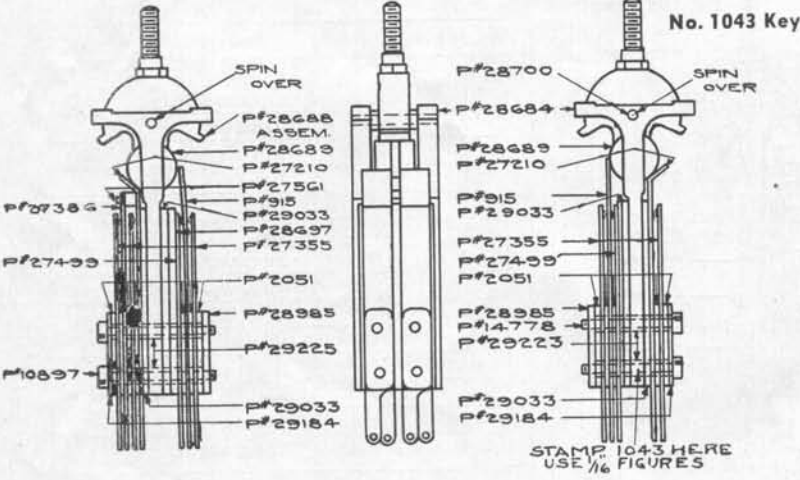
Kellogg



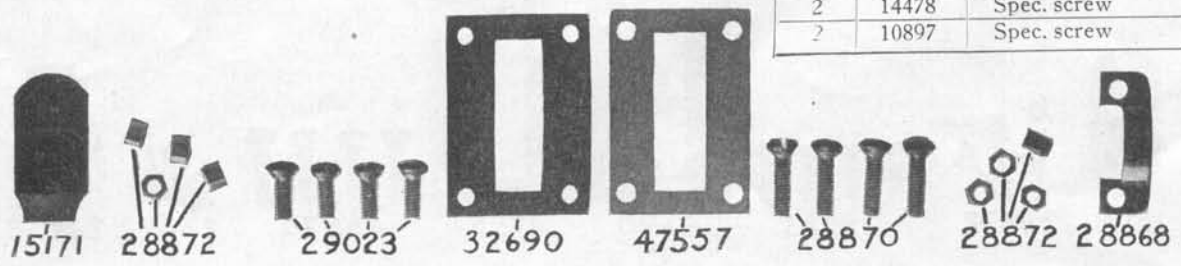
No. Pcs.	Pc. No.	Description
1	28684	Frame
1	28688	Cam assem.
2	28689	Roller
1	28700	Pin
2	29033	Ins.
1	28697	Ins.
10	2051	Ins.
2	915	Spg. with cont.
2	27210	Spg. with cont.
4	27355	Spg. with cont.
2	27499	Spg. with cont.
2	29184	Washer
4	29223	Bushing
2	28985	Nut
4	14778	Spec. screw



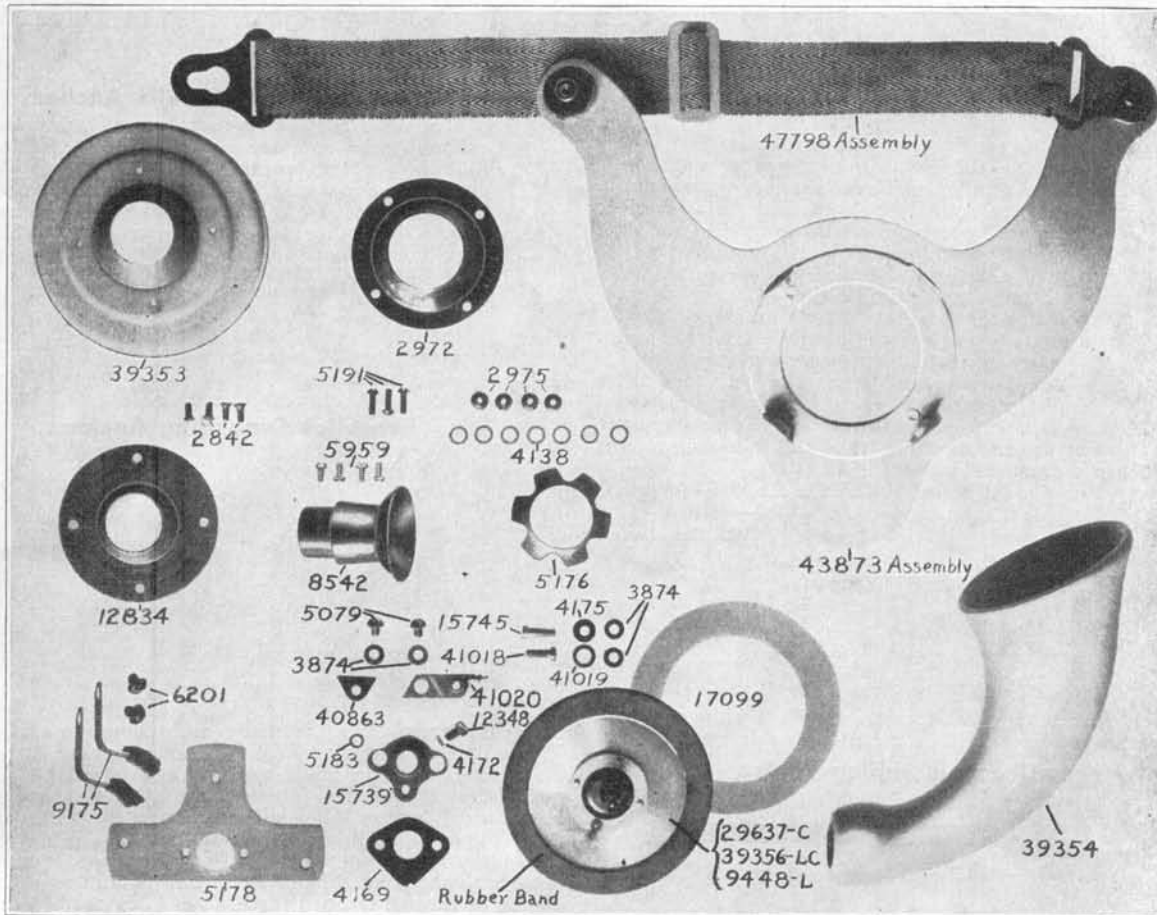
No. Pcs.	Pc. No.	Description
1	28684	Frame
1	28688	Cam assem.
2	28689	Roller
6	2051	Ins.
1	29033	Ins.
2	27210	Spg. with cont.
1	27386	Spg. with cont.
3	27355	Spg. with cont.
2	29184	Washer
2	32475	Bushing
1	28700	Pin
1	27561	Separator
2	28985	Nut
2	29501	Spring
2	29216	Bushing
2	10905	Spec. screw
2	19329	Spec. screw



No. Pcs.	Pc. No.	Description
1	28684	Frame
1	28688	Cam assem.
2	28689	Roller
1	28700	Pin
2	29033	Ins.
1	28697	Ins.
12	2051	Ins.
2	27210	Spg. with cont.
2	915	Spg. with cont.
5	27355	Spg. with cont.
1	27386	Spg. with cont.
2	27499	Spg. with cont.
1	27561	Separator
2	29184	Washer
2	29223	Bushing
2	29223	Bushing
2	28985	Nut
2	14478	Spec. screw
2	10897	Spec. screw

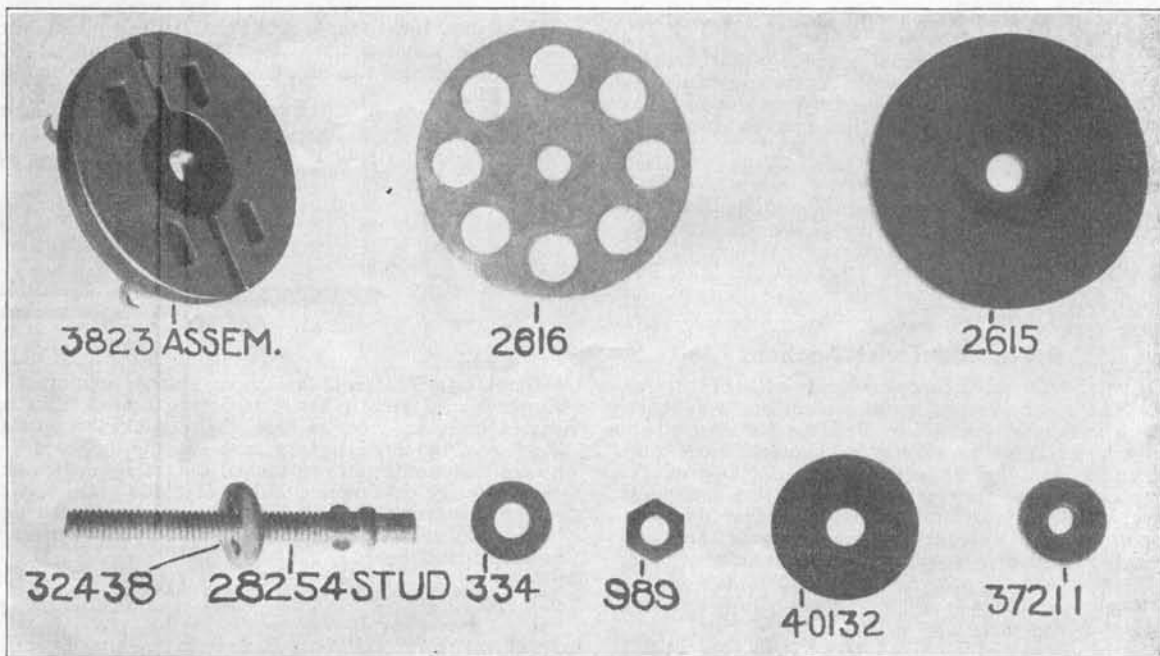


Kellogg



No. 1076 Transmitter

Pc. 43674 breastplate assembly includes Pc. 43873 and 47798. No. 76 transmitter parts are interchangeable, except use Pc. 29776 mouthpiece, Pc. 32549 transmitter front, Pc. 5175 assembly including Pc. 2979 band, 2980 clasp and 2982 buckle.

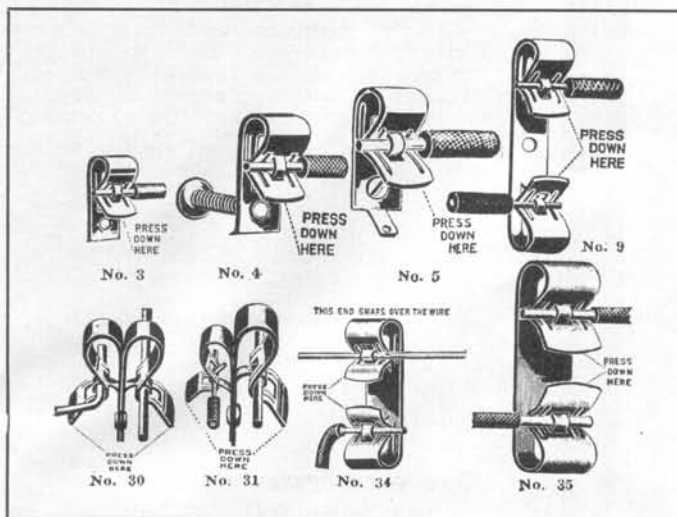


No. 3 Arrestor

Kellogg

CONNECTORS, CLIPS, CONES

Fahnestock Connectors

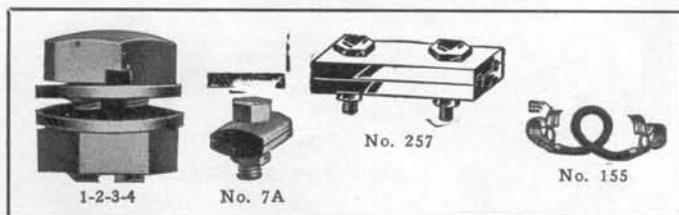


Fahnestock connectors are made of special copper bronze spring metal for different size of wire and for connecting an iron to iron wire, a copper to a copper wire, or an iron to a copper wire.

When ordering be sure and state whether they are to be used on iron wire, copper wire, or on iron to a copper wire; also state the size of wire and gauge. For outside construction work a copper wire should never be fastened directly to an iron wire. In such a combination the copper wire will destroy the zinc coating on the iron wire and in a short time rust the wire, making a poor connection. The use of the iron to copper connector eliminates this difficulty. See table below for size.

Type	Takes B & S Gauge Wire Number	Size Length Width	Screw Holes
3	10	1 1/8 x 3/8	No. 8
4	10	1 x 3/8	No. 8/32 threaded
5	10	1 1/8 x 3/8	No. 8
9	10	2 1/8 x 3/8	No. 8
30		1 1/8 x 3/8	
31		1 1/8 x 3/8	
34	10	2 3/4 x 3/8	

Test Connectors



These connectors are made from copper bar, very easily installed and insure good permanent contact.

Cat. No.	Style	Size Wire	Wt., Lbs. Per 100
7-A	1 Bolt	10x17 B.&S. ga.	6 1/4
257	2 Bolt	10x17 B.&S. ga.	11
155	No. 6 Telephone Battery		2 1/2
1	Brass Bolt	17 or 18 B.&S. ga.	2
2	Brass Bolt	12 B.&S. or 14 N.B.S. ga.	2 1/2
3	Brass Bolt	10 B.&S. or 12 N.B.S. ga.	5
6	Steel Brass Bolt	Copper Drop to No. 12 B.W.G. Iron	11

Connecting Blocks

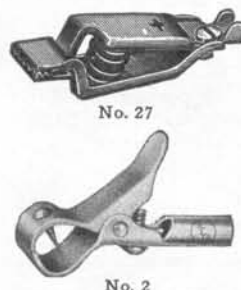


A practical, well-made, low priced connector block that can be used with any size of wire or any style of cord tip. Made of molded Bakelite with brass screws and clips and black enameled cover. This is the only connector of this type completely made of Bakelite and brass and it cannot rust, short or corrode. Clips are spaced far enough apart to eliminate cross connections. Provision for stay cord. The Kellogg Connector is made in both two and three point sizes and can be furnished with or without cover as desired. Cover not included unless specified.

No. 25-A Two point rack (no cover). Pc. No. 58887 Cover only.

No. 25-B Three point rack (no cover). Pc. No. 58889 Cover only.

Test Clips



These clips take a good firm hold and are constructed with a thin nose for tight quarters. The Nos. 27 and 28 are furnished with side jaws for bare wire testing. By using these clips in connection with a pocket-knife a contact can be made without skinning the insulation from wire.

The insulated connector can be attached to the wire without the lineman coming in metallic contact with it. Connections are all of the screw type; the jaw 1/8 inch spread and carrying capacity 10 amperes.

Cat. No.	Stock	Insulated or Bare Wire	Spread of Jaws	Amperage	Per C Wgt.
27	Copper	Bare	3/16"	10	4 lbs.
28	Copper	Insulated	3/16"	10	5 1/2 lbs.
2	Nickel Silver	Bare	5/8"	10	4 lbs.

Paragon Ground Cones

These grounds are made of a perforated sheet of pure copper. The cone is filled with pea-sized charcoal or coke as desired. Furnished with five feet of No. 4 soft copper leading-in wire welded to the grounds.

These cones are especially recommended for establishing suitable central office grounds for the protective apparatus and switchboards. They should be buried at least five feet below the surface and preferably in a heavy clay sub-soil. Before refilling the hole after the cone has been set, the coke or charcoal filling should be well saturated by pouring water over and around the cone. The ground wire should not be smaller than No. 10 heavily insulated copper, well soldered to the lead-in wire, and run as straight as possible to the protector or other apparatus.

Cat. No.	Length Feet	Gauge Copper
3	1	21
4	2	21

Kellogg

TESTING EQUIPMENT

The Teleohm



A practical and inexpensive portable testing instrument for telephone troublemen, switchboard repairmen, linemen and shopmen. Indispensable for testing and locating all kinds of line circuit, telephone and switchboard trouble, shorts, grounds, high resistance, and open circuits in coils of all kinds, also partially shorted coils, high resistance transmitters, cut-outs in receiver, desk stand and switchboard cords, hook switch contacts, etc. Uses two standard flashlight cells for battery. Equipped with a Weston 0-3 Volt Direct Reading Ohmmeter 0-10,000 Ohm Scale, with Glass Protector, mounted in a solid black walnut case size 1 7/8 in. x 3 1/2 in. x 6 in. Complete with battery, "On and Off" Battery Switch, cords and Test Clips. Weight complete 1 1/4 pounds.

Stewart Test Set



This test set tells which way and how far trouble is from the tester without opening the line or cutting the wire. It is equipped with a Director Coil for use on insulated wire.

This Stewart Test Set is a complete portable telephone and talks up just as efficiently. It can be used as a complete local battery

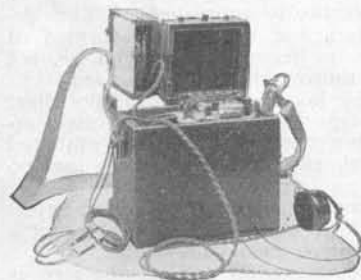
test set for telling trouble directions or as a common battery test set with transmitter in the external circuit. When desired, it can be used to furnish battery for testing on cable or other "dead" wire.

Both types of test sets come complete with all necessary cords and clips, receiver and head band, detector coil, full length shoulder strap and leather top cover.

"Midget Test Set" for light service, size 3 1/2 by 5 3/4 by 1 3/4 inches, weight 8 pounds.

"Heavy Duty Midget Test Set," size 4 1/2 by 6 3/4 by 8 inches, weight 12 pounds.

West Test Set



This Test Set is used in the location of the various forms of trouble, such as: "shorts," "grounds," "crosses," "opens," "swinging trouble," "leaky arrester carbons," "faulty ground rods," "defective windings," etc.

The carrying case consists of vulcanized fiber over a laminated wood body finished with three coats of Duco olive-drab color, and equipped with a long adjustable

shoulder strap. The size over all is 8 x 8 x 3/4 inches and weighs 10 lbs. each.

Telefault-Matthews



The type L Telefault will find wet trouble of high or low resistance, grounds, crosses, split pairs and dead shorts. It will not "noise up" other working pairs. It only sends four volts out on a line. It has a tone test circuit which is more efficient than any other. The exploring coil and receiver will tell whether power circuits are alive before touching them. Operates on one dry cell. Weight, 8 pounds.

The Portis Test Meter



This instrument has been steadily gaining in popularity since its first introduction in 1927. The meter has a direct reading ohm scale and is made by one of the leading and best known instrument manufacturers. The dial is calibrated to indicate resistances from 0 to 10,000 ohms. Assembled in a neat wood case complete with two cells of flashlight battery, test cords, and neck tape. It is of convenient pocket size and indispensable to the trouble man.

Stewart Cable Tester

Locates shorts, crosses, grounds, and wet spots to an inch.

Operates on dry batteries.

As the Exploring Coil is neutral to the tone on the armor the Cable Tester is a success for locating water trouble. This patented feature is found in no other.

This instrument will pay for itself many times each year. Shipping weight, 18 pounds.



Stewart Detecto-Meter

Stewart Detecto-Meters are the most successful instruments made for locating bad joints, locating low resistance ringers, checking transmitters, receivers, induction coils, etc.

Reads resistance direct in ohms, the same as a volt-meter reads volts. Operates on one dry battery.

The instrument is also a 150-volt volt-meter and a battery tester.

It is portable, only weighing 4 lbs. A very reliable, inexpensive instrument.



Stewart Direct Reading Test Cabinet

Reads resistance to trouble direct in ohms. Operates on 30-volts of battery. Can be furnished to operate on 24 volts battery for common battery exchange, if so ordered.

Any telephone man can install it in one hour's time, and anyone can use it. Push button marked Short, and it reads resistance to short. Button marked Ground L-1, reads resistance to ground on one side, and button marked Ground L-2 reads resistance to ground on other side.

Card furnished with each instrument gives distance for each reading on the different sizes of wire.

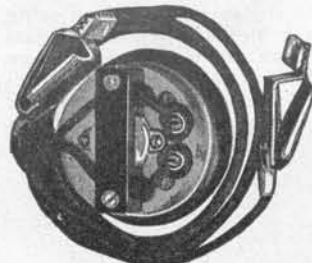
Furnished with 15-volt or 150-volt voltmeter scale as desired.

Shipping weight, 12 pounds.



Stewart Pocket Phone

This Pocket Phone is a combination transmitter and receiver in the same case, to be used as a common battery test set. It talks up as efficiently as a telephone, and when used as a receiver, it is a perfect receiver. Comes complete with cords and clips ready for use. Weight, 4 oz.



Kellogg



KELLOGG Poles

Northern White Cedars . . . Western Red Cedars . . . Creosoted
Yellow Pines . . . all sturdy, strong and straight poles . . . bored,
gained, seasoned and treated to Kellogg specifications. Quality
Guaranteed . . . all sizes stocked . . . abundant supply the year 'round
. . . immediate shipments . . . conveniently located warehouses.
Specify Kellogg "Doubly Guaranteed" Poles on your next order.

KELLOGG
SWITCHBOARD AND SUPPLY COMPANY
1066 West Adams Street, CHICAGO