

LEICH

LEICH BULLETIN 165 FOR APARATUS November 1938

A catalog for telephone apparatus produced by Leich Electric Company, Genoa, Illinois

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LEICH TELEPHONES

LEICH TELEPHONES

LATEST DESIGNS
NEWEST MATERIALS
HIGHEST EFFICIENCY

LEICH SALES CORPORATION

427 W. RANDOLPH STREET : CHICAGO ILLINOIS : FRANKLIN 2931

Distributor for Products of
LEICH ELECTRIC CO.
GENOA, ILLINOIS

LEICH TELEPHONES FOR QUALITY AND EFFICIENCY



BULLETIN 145

To Our Customers:

ON ORDERS, Please state:

1. Code or number of equipment.
2. Name of equipment.
3. Quantity desired.
4. Shipping address.
5. Express, parcel post or freight.

TERMS:

All goods are sold f. o. b. Genoa, Ill., unless otherwise specified by us.

Our terms are 30 days net from date of invoice. To avoid delay, purchasers unknown to us should have satisfactory commercial references or remittances accompany their first order.

SHIPMENTS:

State whether shipment is to be made by freight, (name the route), express or parcel post. In the absence of instructions, goods will be shipped at our discretion. Delivery of parcel post shipments is guaranteed, for which a nominal charge is made.

LIABILITY:

The Company will not be responsible or liable for any loss, damage, retention or delay caused by fire, strike, civil or military authority, or by insurrection or riot, or by any other cause which is unavoidable or beyond its control, nor in any event for consequential damages.

CLAIMS:

Present all claims for breakage to the carrier, as we are not responsible for breakage after delivery of goods in good order to the carrier. If we are notified of such claims, however, we will gladly lend assistance to secure adjustment.

RETURNING GOODS:

Do not return goods for credit or exchange without first obtaining written approval with shipping instructions. Notice of shipment, with copy of shipping receipt, must be mailed to us. The shipment must bear the name and address of the sender, otherwise, we cannot accept responsibility for credit.

PRICES:

Prices applicable to this bulletin are enclosed, or may be had upon request. These prices are changed without notice from time to time to meet manufacturing conditions. The Leich Electric Co., by efficient engineering and management, endeavors to keep prices as low as possible, consistent with quality.

LEICH SALES CORPORATION

427 W. RANDOLPH STREET · CHICAGO ILLINOIS



LEICH ELECTRIC CO.

Telephone and Switchboard Manufacturers

PRESENTS in this bulletin additions to its line of handset telephones which have met with such excellent reception from the trade during the last three years.

As the first independent telephone manufacturer to present a handset telephone combining the features of an anti-side tone booster circuit, transmitter with submerged electrodes and cone shaped diaphragm with high frequency response, it has had its rewards.

It was the first to abandon the old cradle-stick design and present a really modern design in a handset telephone.

The Leich Electric Co. will continue this policy of improvement in design and solicits your business on the quality of its product and a fair price.

You are invited to call and see us at your convenience.

AN OUTSTANDING IDEA



No. 62
C. B. For Use
With Ringer Box

ADD
SUB-BASE and
BOTTOM PLATE
with RINGER
and
YOU HAVE

BOOSTER ANTI-SIDE TONE
INDUCTION COIL CIRCUIT

IN HANDSET TELEPHONES



No. 90 C. B.
Complete
Telephone

THIS MODERN
SELF-CONTAINED
HANDSET
TELEPHONE

SOFT, TWO-TONED RINGER
ATTRACTS ATTENTION
BUT DOES NOT STARTLE

The Leich Handset Telephone is modern in every particular. The latest and best of materials are used in its construction and the engineering is well and carefully carried out. Every step of its manufacture is closely watched and checked so that you may depend on the performance of every unit. Ask the man who has used Leich handset telephones his opinion of this equipment. We know what the answer will be.

We are not presenting in this bulletin just another handset telephone but one which is a step in advance of all others. Study the two instruments shown and try to obtain their equal in money saving operation and stock reduction possibilities.

No. 62 HANDSET TELEPHONE

The No. 62 Handset Telephone uses a booster anti-side tone induction coil circuit which is unsurpassed for efficiency. It avoids the disagreeable side-tone on outgoing transmission, but does not decrease the booster effect.

The hand unit and stand are of black bakelite. The hand unit is well balanced, easy to use and of proper design to fit the cradle of the stand perfectly with resultant positive actuation of the hookswitch. The stand, although modern in design, is correct in artistry, pleasing in appearance and will harmonize with all surroundings. The base is not large, occupying less space on a desk or stand than any other modern telephone. It measures $5\frac{3}{4}$ " x $4\frac{3}{4}$ " and the height is 5". The base is covered with felt to prevent maring or scratching.

The hookswitch is an integral part of the cradle at the top of the handset stand. It is attached to the stand by two machine screws and is readily accessible by removing these screws.

The cord terminals are mounted on an independent bakelite strip and not moulded in the base. Damaged terminals may be changed without the loss of the complete stand which occurs if the terminals are moulded integral with it.

The highly efficient induction coil is mounted in the base, also the condenser for the booster circuit. The No. 62 LEICH Handset Telephone has the most accessible and convenient mounting of equipment and terminals of any telephone.

The transmitter, receiver and hand unit are described on pages 9 and 10. A dial may be added at any time without rewiring.

This telephone may be used with any conventional ringer box.

No. 90 HANDSET TELEPHONE

The No. 90 Handset Telephone is a development of the No. 62.

The demand for the No. 62 type for use with old bell boxes raised the question of providing a completely self-contained handset when the old bell boxes would be discarded.

Instead of designing an entirely new telephone it was decided that the most economical development would be a sub-base and bottom plate with

ringer to add to the No. 62 telephone. The No. 90 is the result.

The ringer is of new and modern design, small, but efficient and easily adjusted. It is a fit successor to the old large style ringer. Two deep-skirted gongs of different tones provide a soft attention compelling, chime which is not startling altho loud. Low loss cores with proper coil winding result in a ringer having a high impedance to voice currents. The magnet is of cobalt steel and will not demagnetize with age. It may be had for any harmonic frequency as well as the straight line type.

The sub-base and bottom plate may be removed at any time to convert to the No. 62 type for an answering telephone or for use with a bell box.

The No. 62 and No. 90 telephones will materially reduce your telephone stock and at the same time meet any demand for service.

No. 90 C. B. Telephone with straight line ringer
No. 90 C. B. Telephone with harmonic ringer

(Specify the frequency if harmonic ringer is wanted.)

CENTRAL BATTERY TELEPHONES

No. 60 HANDSET TELEPHONE

The No. 60 Handset Telephone uses a booster anti-side tone induction coil circuit which is identical with the No. 62.

The induction coil is not mounted in the base, however, so it must be used with the No. 8A or No. 8B bell box.



NO. 60 HANDSET TELEPHONE

Metallic ringing—Code No. 2A Bell Box.
Ground ringing—Code No. 8B Bell Box.

(Specify the frequency if harmonic ringer is wanted.)

No. 61D TELEPHONE

The No. 61D Telephone is equipped with a direct current receiver and is not of the booster type circuit. This instrument is identical in appearance with the No. 60 but is intended for very local or P. B. X. service. The transmission is excellent and the reception imperceptibly lower than the standard instrument. The stand and handset are the same as used in the standard telephone, as is the transmitter, but the receiver is of the direct current type designed for this type telephone. The cords are two conductor.

The telephone may be used with a conventional bell or buzzer box. This instrument is not excelled in convenience or quality of local P.B.X. service.

No. 91D HANDSET TELEPHONE

The No. 91D Handset Telephone is identical in appearance to the No. 90 but is equipped with a direct current receiver and is not of the booster type circuit. This instrument, like the No. 61,

is intended for very local P. B. X. service. The transmission is excellent and the reception imperceptibly lower than the standard instrument.



NO. 91D HANDSET TELEPHONE

It can be equipped with straight line, biased, or harmonic ringers.

No. 91D Handset Telephone, straight line ringer
(Specify the frequency if harmonic ringer is wanted.)

No. 65 HANDSET WALL TELEPHONE

The convenience of the handset has led to its use on wall telephones although originally developed as part of a desk instrument.

It is not only convenient to use but the correct spacing of the transmitter to the user's lips, which



NO. 65 HANDSET WALL TELEPHONE

its design determines, results in improved transmission.

CENTRAL BATTERY TELEPHONES

The Leich handset provides a service which is not equalled by the usual transmitter and receiver. Its use on a wall telephone is a logical development.

The replacement of obsolete telephones by the handset type is a necessary step in giving the quality of service which will be determined in the future.

The No. 65 Handset Wall Telephone uses a booster type anti-side tone induction coil circuit that avoids the disagreeable receiver side tone on outgoing transmission but does not decrease the booster effect. It consists of a steel wall box, parkerized to prevent rust, and given a durable black japan finish that will neither chip nor peel. The equipment is well and accessibly mounted. The enclosed gong ringer may be removed by taking out two screws. The induction coil, condenser and terminal block may be removed individually without disturbing any other part. The terminal blocks are of bakelite with strong and convenient terminals.

This telephone, complete with handset, is $9\frac{1}{8}$ inches high, $6\frac{3}{8}$ inches wide and $5\frac{1}{2}$ inches deep.

No provision for dial or dial wiring is made in this telephone.

Code No.	Description
65A	Handset wall telephone, metallic ringing
65B	Handset wall telephone, ground ringing

(Specify the frequency if harmonic ringer is wanted.)

No. 64 HANDSET WALL TELEPHONE

The No. 64 Telephone is of the same construction and appearance as the No. 65 except that it has provision and wiring for a dial. The dial is not included with the telephone.

Code No.	Description
64A	Handset wall telephone for metallic ringing
64B	Handset wall telephone for ground ringing

(Specify the frequency if harmonic ringer is wanted.)

No. 78

ANSWERING HANDSET TELEPHONE

The No. 78 Answering Handset Telephone consists of a steel case, parkerized to prevent rust, and given a durable black japan finish. The

telephone consists of a base having the induction coil, condenser, hookswitch and terminals accessibly mounted on it. The case or cover is attached to the base with interlocking hinges held by one screw each.

The circuit is of the booster anti-side tone type and provides the same excellent transmission as the standard central battery handset telephone.

No. 51 DESK TELEPHONE



NO. 51
DESK
TELEPHONE

The Leich Desk Stand is a sturdy piece of equipment which will stand the severe usage accorded a desk telephone. The base and stem are of steel, parkerized and covered with a substantial coating of black japan that will neither chip nor peel.

The head is fastened to the stem by screws. The joint is held by spring washers of substantial size which support the transmitter permanently in any position.

The hookswitch spring and terminal block are mounted in the base. The stand is equipped with a 4-conductor, 6 foot cord. The No. 8 Bell Box is used with this desk stand providing the same circuit and transmission as the handset type telephones.

No. 52 WALL TELEPHONE

The No. 52 Wall Telephone is of the same construction and appearance as the No. 53 telephone except that it has provision and wiring for a dial. The dial is not included with the telephone.

Code No.	Description
No. 52A	Wall Telephone, metallic ringing
No. 52B	Wall Telephone, ground ringing

(Specify the frequency if harmonic ringer is wanted.)

Leich Central Battery and Magneto Switchboards are beautifully designed. All equipment is accessible and in addition will stand the constant wear of hard service. Write for information in regard to LEICH switchboards before purchasing new equipment.

CENTRAL BATTERY TELEPHONES

No. 53 WALL TELEPHONE

The No. 53 Wall Telephone has the same base plate and wiring as the No. 65 handset wall telephone which makes it possible to convert this instrument to the handset type by changing the cover and hooklever. The hinges are of an interlocking type, held by one screw, making the cover readily removable.

It uses a booster type anti-side tone induction coil circuit that avoids the disagreeable receiver side tone on outgoing transmission but does not decrease the booster effect. The case is of steel, parkerized to prevent rust, and given a heavy



NO. 53 WALL TELEPHONE

finish of black japan that will neither chip nor peel. No provision for dial or dial wiring is made in this telephone.

Code No.	Description
No. 53A	Wall Telephone, metallic ringing
No. 53B	Wall Telephone, ground ringing (Specify the frequency if harmonic ringer is wanted.)

No. 8 BELL BOX

The No. 8 Bell Box has a steel case, parkerized to prevent rust and given a durable finish of black japan that will neither chip nor peel. It is of the enclosed gong type which gives the exterior of the case a neat appearance. The smooth surface results in a cabinet having no inaccessible place where dust may collect.

The case contains the ringer, induction coil, condenser and necessary terminal blocks. The terminal blocks are of bakelite and are accessibly

mounted. All parts in this bell box are mounted independently of each other which makes it possible to replace any one part without disturbing another.



NO. 8 BELL BOX

The cover is attached with interlocking hinges held by one screw each. This allows the cover to be completely opened. One screw locks the case.

The base of this bell box is interchangeable with that of the No. 53 and No. 65 telephones. Its dimensions are: $9\frac{1}{8}$ " x $6\frac{3}{8}$ " x $3\frac{1}{2}$ ".

Code No.	Description
No. 8A	Bell Box for metallic ringing
No. 8B	Bell Box for ground ringing (Specify the frequency if harmonic ringer is wanted.)
No. 8R	Bell Box for use with No. 70R telephone

No. 10 BELL BOX

This box is identical to No. 8 in appearance. Contains ringer and condenser only. May be used with any telephone using a two conductor connecting cord.

No. 70 HANDSET DESK TELEPHONE

The Leich No. 70 Handset Desk Telephone is of the same excellent construction as the central battery instruments. All parts are mechanically interchangeable with the No. 62 C. B. telephone.

The statements made regarding the transmission efficiency of the central battery handset telephones applies without reservation to this magneto handset telephone. The circuit is of the

MAGNETO TELEPHONES

anti-side tone type. The anti-side tone induction coil is mounted in the stand, provision also being made for a sure-ring condenser. The induction coil core is of silicon steel sheet making



NO. 70 HANDSET DESK TELEPHONE

a much more efficient coil than if it were made of the usual iron wire. This telephone is used with the generator bell boxes listed on page 9. As it contains the complete talking circuit, a modern telephone of the highest talking efficiency may be had by combining a No. 70 Telephone with your generator bell boxes. This is one way in which you can modernize your telephone instruments at low cost. A three conductor cord with spade terminals is standard. Specify pins if desired.

Code No.	Description
70A	Magneto Handset Desk Telephone with induction coil 14.00
70C	Magneto Handset Desk Telephone with induction coil and sure ring condenser (See Page 9 for Generator Bell Boxes)

No. 70R MAGNETO HANDSET TELEPHONE

The No. 70R Magneto Handset Telephone is similar to the 70C. A pushbutton is provided in the dial blank which is used to signal central by means of battery current instead of the usual magneto generator. This telephone is for practical use in small exchanges where business houses are located near the exchange. Bell Box No. 8R is used with this telephone.

No. 72 HANDSET DESK TELEPHONE

The No. 72 Handset Desk Telephone is identical in appearance to the No. 70 but has a different circuit and does not have the induction coil in the base. This telephone is intended for use with Generator Bell Boxes which contain the induction coil. Although not providing an anti-side tone circuit, the Leich No. 72 Handset Telephone, due to its excellent transmission qualities,

will improve the operation of any equipment to which it is added.

This telephone can be used to replace obsolete types of desk stands, etc.

Code No.	Description
No. 72A	Magneto Handset Desk Telephone with three conductor cord
No. 72C	Magneto Handset Desk Telephone with sure-ring condenser and three conductor cord

No. 92 MAGNETO HANDSET DESK TELEPHONE

The No. 92 Magneto Desk Telephone is a No. 70 equipped with a sub-base and bottom plate with ringer. A separate box with generator is necessary for signaling. This makes a very convenient and attractive instrument for business and office use. Can be equipped with straight line, biased or harmonic ringers as specified.

Code No.	Description
No. 92A	Magneto Handset Telephone — less generator
No. 92C	Magneto Handset Telephone — less generator, sure-ring condenser

No. 92R MAGNETO HANDSET DESK TELEPHONE

The No. 92R Magneto Handset Desk Telephone is a completely self-contained telephone with signaling push button. It is a No. 70R equipped with sub-base and bottom plate with ringer. A terminal block provides connections for the talking and signaling batteries. A signaling battery of 6 or 7½ volts is ample for the average small exchange. This instrument makes a beautiful installation in home or office as the batteries may be concealed in any convenient position and wired to the terminal block.

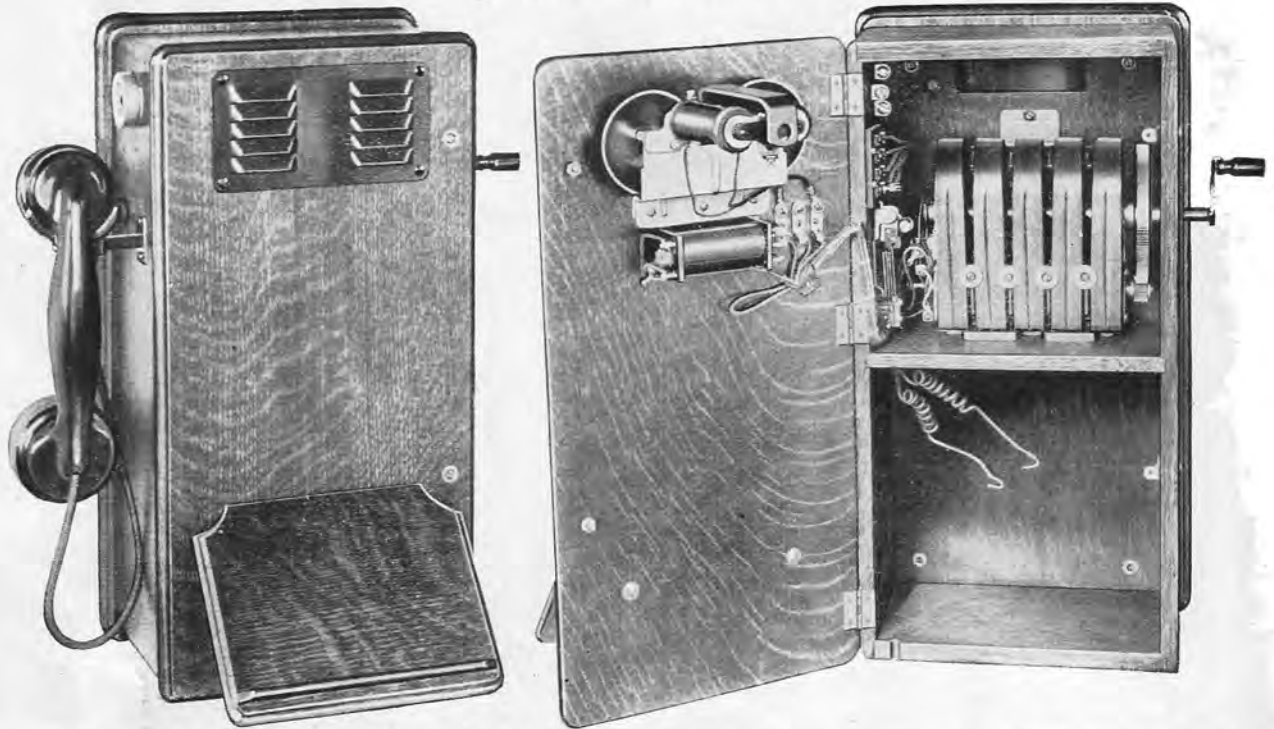
Code No.	Description
No. 92R	Magneto battery signaling handset telephone

No. 77 HANDSET ANSWERING TELEPHONE

The Leich No. 77 Handset Answering Telephone consists of a steel case, parkerized to prevent rust, and given a durable black japan finish that will neither chip nor peel.

The case contains the induction coil, hook-switch and terminals. The handset is suspended from the hooklever. The circuit is of the anti-side tone type providing the same excellent quality of transmission as the standard magneto handset telephone.

COMPACT TYPE WALL TELEPHONE WITH HANDSET



NO. 305—(closed view)

Shipping Weight—One Telephone to a carton
3-Bar Gen. Type 20 lbs.

NO. 305—(open view)

5-Bar Gen. Type 23 lbs.

COMPACT TYPE WALL TELEPHONE

Leich Compact Type Wall Telephones are especially designed for farm line and local magneto service. The cabinet is substantially built from selected, sound, quarter-sawed oak, stained and well finished. Leich generators and ringers need no introduction to the trade except to state that new materials have greatly increased their efficiency.

Realizing that the handset telephone will be used increasingly in the future, the Leich Electric Co. has equipped the compact magneto telephone with a handset. This handset is the same as used on central battery telephones except the transmitter, which is designed for local battery service.

The circuit is of the anti-side tone type providing a quality of transmission new to magneto equipment.

The gongs are concealed, induction coil mounted on the door where it is accessible and

all wiring cabled. In fact, nothing has been neglected in making this the finest instrument of its type.

Code No.	Ringer	Generator
303A-1000	1000 ohms	3 Bar
303A-1600	1600 ohms	3 Bar
305A-1000	1000 ohms	5 Bar
305A-1600	1600 ohms	5 Bar
305A-2500	2500 ohms	5 Bar

(If exposed gongs are desired specify on your order)

The following auxiliary equipments will be furnished with magneto compact type telephones when so ordered.

To order, change letter A to the letter corresponding to the additional equipment as: 305C-1600 Magneto Wall Telephone with condenser.

C—Is code letter for a sure ring condenser. This consists of a $\frac{1}{2}$ M. F. condenser inserted in the receiver circuit which limits the passage of ringing current if the receiver is off the hook. If all telephones on a line are so equipped, it is possible to "ring through"

MAGNETO TELEPHONES

even if a number of receivers are off the hook.

D—Push button to ground for metallic lines. This telephone is equipped with a push-button to call central secretly. The line must be metallic and all the telephones on this line so equipped as the drop at central is connected from one line wire to ground. Telephones on the line are rung metallic but central is called over one line wire to ground.

F—Push button and pulsating generator for grounded lines. The generator of this telephone delivers both pulsating and alternating current. With the push-button normal, alternating current rings the bells and throws the drop at central. If the button is pressed, pulsating current throws the drop but does not ring the bells, thereby calling central secretly.

G—Wired for silent ringing. The bell does not ring when ringing central or other parties on the line.

RESIDENCE TYPE MAGNETO TELEPHONE

The quarter sawed cabinet is well constructed and carefully finished. It contains the standard Leich generator and ringer also the induction



NO. 335 TELEPHONE

coil. The handset and circuit are the same as in the No. 305 telephone, providing identical quality of transmission and service. This telephone

is furnished in the same code letters as the standard, compact type.

Code No.	Ringer	Generator
333A-1000	1000 ohms	3 Bar
333A-1600	1600 ohms	3 Bar
335A-1000	1000 ohms	5 Bar
335A-1600	1600 ohms	5 Bar
335A-2500	2500 ohms	5 Bar

COMPACT TYPE WALL TELEPHONE RECEIVER AND TRANSMITTER

This telephone is the same as the No. 303-5 except that it is equipped with a receiver, transmitter and transmitter arm.



NO. 405 TELEPHONE

The same auxiliary equipments are furnished as on the No. 303-5 type. If exposed gongs are desired, so state on your order.

Code No.	Ringer	Generator
403A-1000	1000 ohms	3 Bar
403A-1600	1600 ohms	3 Bar
405A-1000	1000 ohms	5 Bar
405A-1600	1600 ohms	5 Bar
405A-2500	2500 ohms	5 Bar

MAGNETO TELEPHONES

No. 1 L

DESK TYPE MAGNETO TELEPHONE



NO. 1 L
DESK
TELEPHONE

The Leich Magneto Desk Stand is of the same construction as the C. B. stand. The base and stem are of steel, parkerized to prevent rust, and given a durable coat of black japan.

The head and joint are well constructed to hold the transmitter in any position. The hookswitch springs, induction coil and terminals are mounted in the base in an accessible position facilitating inspection. The stand is equipped with a 3-conductor, 6 foot cord and connects to the same generator bell box as the handset type telephones.

(See elsewhere on this Page for Generator Bell Boxes)

MAGNETO HANDSET REPLACEMENT UNIT

It will be but a matter of a few years until the handset telephone will be the telephone in general use. Why? Because advertising is rapidly acquainting the public with its use and it is such



Code No. 2 Magneto Handset Replacement Unit
—Patent Applied For—

a convenient and efficient instrument that, once seen and used, it is wanted.

The Leich Magneto Handset Replacement Unit makes it possible to convert standard compact type wall telephones, which contain induction coils of efficient design, to the handset type without special wiring. No one item has as much selling power in getting subscribers as a telephone with a handset.

The telephone may be installed low on the wall so that the user may sit at a desk or table conveniently when talking.

It Consists of:-

- 1 Handset with cord
- 1 Saddle
- 1 Plate to cover transmitter arm surface on lid

Method of Attachment

Remove the receiver, transmitter and transmitter arm from the telephone. Attach the saddle to the hookswitch. Connect receiver cord pin terminals to the receiver terminals of the telephone and the two transmitter cords to the transmitter leads on lid of telephone. No rewiring necessary. **Modernize your magneto wall telephone for better and more satisfactory service.**

GENERATOR BELL BOXES

The No. 323-5 Generator Bell Box is used with Leich No. 70 handset telephones and No. 1L Desk Stands. The cabinet is substantially built of quarter-sawed oak and given an excellent finish. It is equipped with the standard Leich generator and ringer. May be had with exposed gongs if specified.

The following auxiliary equipment will be furnished when so ordered. To order change letter A to the letter corresponding to the additional equipment as: 325C-1600 Generator Bell Box with condenser.

Code No.	Ringer	Generator
323A-1000	1000 ohms	3 Bar
323A-1600	1600 ohms	3 Bar
325A-1000	1000 ohms	5 Bar
325A-1600	1600 ohms	5 Bar
325A-2500	2500 ohms	5 Bar

MAGNETO TELEPHONES



NO. 325 GENERATOR BELL BOX

- C—Is code letter for a sure ring condenser. This consists of a $\frac{1}{2}$ M. F. condenser inserted in the receiver circuit which limits the passage of ringing circuit if the receiver is off the hook. If all telephones on a line are so equipped, it is possible to "ring through" even if a number of receivers are off the hook.
- D—Push button to ground for metallic lines. This telephone is equipped with a push-button to call central secretly. The line must be metallic and all the telephones on this line so equipped as the drop at central is connected from one line wire to ground. Telephones on the line are rung metallic but central is called over one line wire to ground.
- F—Push button and pulsating generator for grounded lines. The generator of this telephone delivers both pulsating and alternating current. With the pushbutton normal, alternating current rings the bells and throws the drop at central. If the button is pressed, pulsating current throws the drop but does not ring the bells, thereby calling central secretly.
- G—Wired for silent ringing. The bell does not ring when ringing central or other parties on the line.

MAGNETO EXTENSION BELL

The Leich No. 2A Magneto Extension Bell consists of a small quarter-sawed oak cabinet containing a standard Leich ringer. Two line binding posts are provided.

Code No.	Resistance
2A	1000 Ohms
2A	1600 Ohms
2A	2500 Ohms

(Can be furnished with biased or harmonic ringers)

NO. 2A
EXT. BELL



TELEPHONE PARTS HANDSET

LEICH HANDSET UNIT

The Leich Handset Unit consists of a moulded bakelite handle having the ends shaped to receive the transmitter and receiver. Particular care was used in designing this handset so that a pattern of artistic design, as well as one of utility would be obtained.

The spacing between, and the angle of the transmitter to the receiver, results in a handset of great convenience as well as comfortable use. It is light in weight, one pound, or the same weight as the average hand receiver. The handle fits the hand perfectly and at the same time readily slides into



position on the cradle of the stand to actuate the hookswitch.

Connecting cords are provided in the handle for connecting the transmitter and receiver. Substantial terminals and stay cord fastenings are provided at the transmitter end for the handset cord.

The transmitter and receiver are held in place by the receiver cap and transmitter clamping ring. The receiver cap and transmitter clamping ring are so shaped that dust will not collect on their bottom edges as is the case with most handsets.

Code No.	Description
1C	Handset for central battery use
1D	Handset for central battery use, with direct current receiver
1L	Handset for magneto use

HANDSET RECEIVER

The Leich Polarized Handset Receiver consists of a brass cup which contains the permanent magnet and magnet coils. The permanent magnet is of large area and superior strength. The magnet coil cores are mounted at the ends of the permanent magnet and are made of a steel alloy which reduces the losses to a minimum.



The diaphragm is of a special steel rolled for the purpose.

The design and materials used in this receiver are such that it is equivalent to the hand receiver in efficiency.

Code No.	Description
8292	Receiver complete with diaphragm
8297	Diaphragm only

HAND RECEIVER

The Leich Hand Receiver is new throughout. It has a permanent magnet of a new steel alloy which assures its permanency. The cores of the magnet coils are made of a new, low loss, steel alloy which reduces the losses to a minimum.

It has a brass cup to which the magnet and magnet coils are securely attached. The magnet coils are mounted in such a manner that the spacing between the diaphragm and pole faces is fixed and without possibility of change.

The coil terminal wires are soldered to one-piece terminals avoiding all possibility of opens or high resistance joints in the terminal structure.

The shell and cap are of composition. A 36-inch moisture-proof cord with brown mercerized outer braid is supplied with each receiver.

Code No. 7 Receiver with 36" cord.



HANDSET TRANSMITTER

The demand for better transmission has led to considerable improvement in the design of transmitters. Various designs have been produced but all with the thought of improving the articulation, or in other words, eliminating repeats. The Leich handset transmitter has a frequency response double that of the usual solid black transmitter resulting in better articulation. Its construction causes greater transmission than the usual type.



As is usual with all efficient devices, the Leich transmitter is simple but substantial in construction.

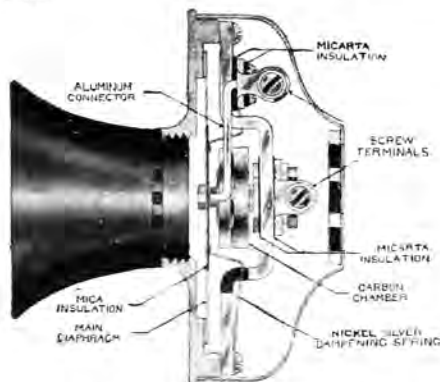
It uses the cone type diaphragm and is moisture-proof. The breath of the user is also excluded from the diaphragm preventing deterioration due to corrosion.

This transmitter fits as a unit in the Leich handset.

STANDARD TRANSMITTERS WITH METAL FRONT

The Leich No. 1C and 1L transmitters have been used by many operating companies. They have a fine record for dependability and economical service.

The front is of brass with a black japan finish. The construction of the bridge is simple and substantial.



1C - 1L TRANSMITTER

Changes in the electrode construction and granular carbon have improved the transmission and life.

The transmitter is regularly furnished with a backcup with universal drilling to mount on any arm with butt joint.

The C type is for central battery use.
The L type is for magneto use.

These transmitters are drilled and tapped for three sizes of mouthpieces as follows:

1" — 20 thread standard for Leich transmitter, Eureka, Monarch, Stromberg-Carlson, American Electric.

$\frac{7}{8}$ " — 20 thread standard, Kellogg.

$\frac{7}{8}$ " — 28 thread standard, Western Electric.

GENERATORS



NO. 5A GENERATOR

Magneto telephones require a generator of compact size with a large current output. Leich generators are built in the 3 and 5 bar size. The 3 bar has ample

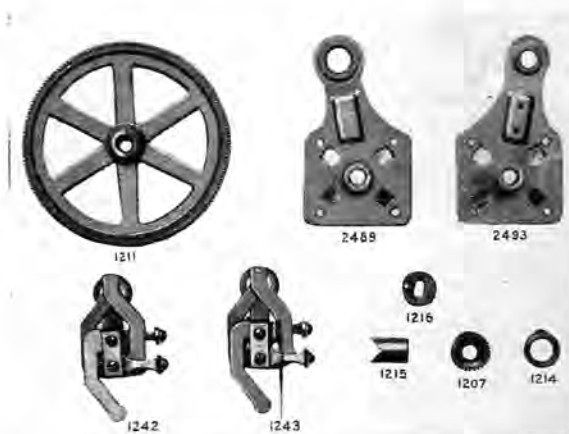
capacity for use on lightly loaded rural lines. The 5 bar is intended for use on long and heavy loaded farm lines.

Pole pieces are of cast iron, riveted by studs to form a rigid box which is accurately bored to receive the armature and center the end plates. The armature is of the bobbin type with a large wire area. It is turned to size after winding and assembling which permits the use of a small air gap increasing the output.

Leich generators are equipped with a new alloy magnet steel that increases the magnetic flux and assures a permanent output. They are regularly equipped with universal shunt springs that short the armature winding when not in use. The armature shaft is drilled to mount a commutator for furnishing pulsating current.

- 3A 3 bar alternating current.
- 3B 3 bar alternating and pulsating current.
- 5A 5 bar alternating current.
- 5B 5 bar alternating and pulsating current.

GENERATOR PARTS



- 1185 Magnet
- 1208 Generator Pinion Spring
- 1211 Generator Gear
- 1214 Gear Hub Collar
- 1215 Shunt Piece
- 1216 Pinion Cap
- 1233 Crank Handle
- 1207 Generator Pinion
- 1241 Gear Shaft 3-Bar Generator
- 1242 Universal Shunt assembled
- 1243 Alternating and Pulsating Current, Shunt assembled
- 1245 Generator Crank and Handle
- 1246 Commutator for Pulsating Current
- 1267 Gear Shaft 4-Bar Generator
- 1268 Gear Shaft 5-Bar Generator
- 2489 End Plate, gear end
- 2493 End Plate, shunt spring end
- 1240 3-Bar Armature wound
- 1269 4-Bar Armature wound
- 1270 5-Bar Armature wound

RINGERS (BRIDGING)

Leich Ringers are of rigid and simple construction. The heel iron is flat and has the gong supports riveted solidly. When installed in the telephone, spacing washers are provided to obtain the proper clearance between the ringer and door of cabinet.

The adjustment is simple and permanent. The distance between the armature and each pole piece is maintained equal and controlled by a single screw. Gong adjustment is obtained by having the gong mounting holes off center. By rotating on the stud any desired adjustment is easily made. The gongs are clamped solidly by lock nuts consisting of a flat hexagon nut and a cap nut.



NO. 1A RINGER

STRAIGHT LINE RINGERS

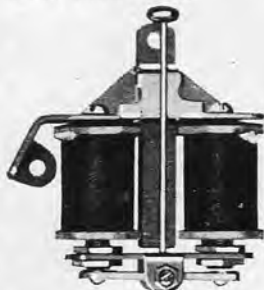
Code No.	Ringer Ohms
1A- 500	500 Ohms
1A-1000	1000 Ohms
1A-1600	1600 Ohms
1A-2000	2000 Ohms
1A-2500	2500 Ohms
3A- 80	80 Ohms

LEICH NEW TYPE RINGERS

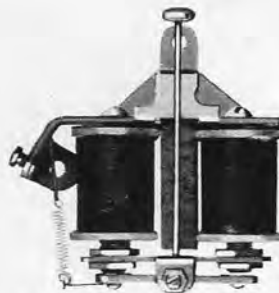
The Leich new type ringer is the result of improvements in steels during recent years. The new silicon steels permit the use of smaller cores for the spools and have no greater losses than the old style large spools. Changes in the shape and material of the gongs permits the size to be reduced and still obtain a loud, clear ring.

These ringers have the same losses across the lines as the old style altho less than 2/3 the size. The magnet is of cobalt steel which permits of small size but ample, permanent magnetism. This magnet will not become demagnetized in use.

The armature of this ringer is readily adjusted by means of the lock nuts on the cores.



NO. 31 RINGER, STRAIGHT LINE



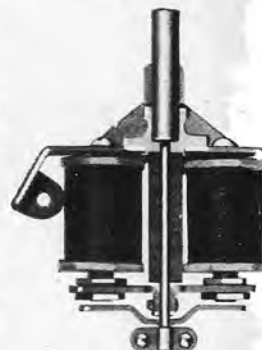
NO. 32 RINGER, BIASED

This ringer is identical in design to the No. 31 but is equipped with a biasing spring. The adjustment of this ringer is very simple and permanent. The amount of tension can be regulated very accurately.

Leich harmonic ringers are noted for their accurate tuning and long life. This new small model is designed for the same good performance.

The adjustment of the armature is by means of nuts on the spool cores which is accurate and permanent.

The magnet is of cobalt steel and will retain its magnetism indefinitely in hard service.



NO. 34 HARMONIC RINGER

It can be furnished in any of the following frequencies which should be specified when ordering.

16% cycles	16 cycles	20 cycles
33 1/3 cycles	30 cycles	60 cycles
50 cycles	42 cycles	
66% cycles	54 cycles	
	66 cycles	

LEICH RINGER GONGS

For 31, 32 and 34 Ringers



- 8918 Gong, low pitch
- 8919 Gong, high pitch

TELEPHONE PARTS

No. 21 RINGER (Enclosed Gong Type)

This ringer is of the same construction as the No. 1 type but has shorter gong posts to mount the gongs within the cabinet. It is arranged to mount on a bracket inside of the telephone lid.

Code No.	Resistance
21A- 500	500 Ohms
21A-1000	1000 Ohms
21A-1600	1600 Ohms
21A-2500	2500 Ohms

P. No. 8568 Bracket for mounting No. 21 ringer

SELECTIVE RINGERS (Biased Ringer)

The Biased Ringer has the armature yoke clamped by two nuts on each core and armature throw is further controlled by a set screw in each end of the armature proper. The method of biasing eliminates trouble due to atmospheric conditions.

Code No.	Resistance
5A- 500	500 Ohms
5A-1000	1000 Ohms
5A-1600	1600 Ohms
5A-2500	2500 Ohms



HARMONIC RINGERS

The Leich Electric Co. has specialized in harmonic ringing equipment for many years, manufacturing a complete line of harmonic converters and ringers.

Leich Harmonic Ringers are accurately tuned to frequency specified and due to rigid construction and careful assembly will stay tuned indefinitely. The armature yoke is slotted and supported by lock nuts on the magnet core. By loosening the outer nuts the armature may be re-

moved and replaced by one of a different frequency.

The heel irons are provided with two sets of mounting holes that makes the ringer interchangeable with other standard ringers. This is an exclusive feature with Leich Harmonic Ringers.

Furnished regularly with brass gongs. If nickled or black finished gongs are desired, so specify.

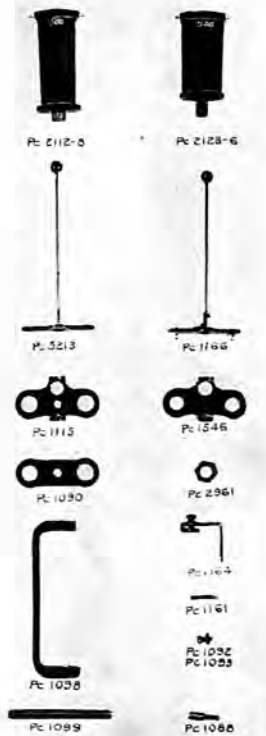


Code No.		Resistance
No. 4A-16 Ringer	16 Cycle	2500 Ohms
No. 4A-33 Ringer	33 Cycle	500 Ohms
No. 4A-50 Ringer	50 Cycle	500 Ohms
No. 4A-66 Ringer	66 Cycle	500 Ohms
No. 4B-20 Ringer	20 Cycle	2500 Ohms
No. 4B-30 Ringer	30 Cycle	1000 Ohms
No. 4B-42 Ringer	42 Cycle	1000 Ohms
No. 4B-54 Ringer	54 Cycle	1000 Ohms
No. 4B-66 Ringer	66 Cycle	1000 Ohms

TELEPHONE PARTS

RINGER COILS

RINGER COILS



RINGER PARTS

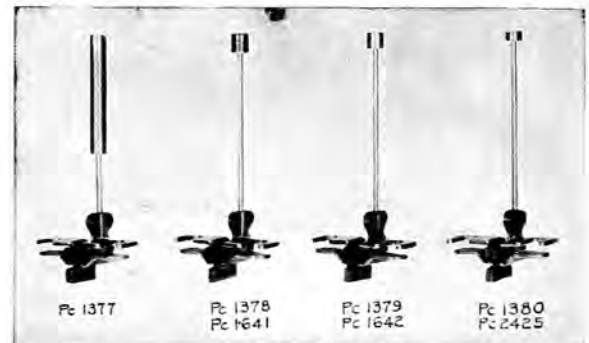
Piece No.	Resistance	For Code No. Ringer
2112	250 Ohms	1A- 500
2114	500 Ohms	1A-1000
2115	800 Ohms	1A-1600
2116	1000 Ohms	1A-2000
2117	1250 Ohms	1A-2500
2118	40 Ohms	3A- 80
2426	20 Ohms	Switchboard Buzzer
2123	500 Ohms	5A-1000, 4B-30-42-54-66, 6B-30-42-54
2121	250 Ohms	4A-33-50-66
2124	800 Ohms	5A-1600
2125	1000 Ohms	5A-2000
2126	1250 Ohms	5A-2500, 4A-16

MISCELLANEOUS RINGER PARTS

Piece No.	Description	Ringer Used On
1088	Adjusting Screw	1A
1090	Yoke Spring	1A
1092	Adjusting Pivot	1A, 5A
1093	Lock Nut	1A, 5A
1098	Magnet	1A, 4A, 4B, 5A, 6B
1099	Stud	1A
1115	Yoke and Pivot	1A
5213	Armature	1A
1161	Biasing Spring	5A
1164	Spring Bracket	5A
1166	Armature	5A
1546	Yoke	5A
2961	Lock Nut	4A, 5A
5212	Armature	Switchboard Buzzer
1086	Locknut for Gong	All
1087	Hexagon Nut for Gong	All

HARMONIC RINGER ARMATURES

Piece No.	Description
1377	Armature for 4A 16 cycle ringer
1378	Armature for 4A 33 cycle ringer
1379	Armature for 4A 50 cycle ringer
1380	Armature for 4A 66 cycle ringer
1641	Armature for 4B 30 cycle ringer
1642	Armature for 4B 42 cycle ringer
1643	Armature for 4B 54 cycle ringer
2425	Armature for 4B 66 cycle ringer



HARMONIC RINGER ARMATURES

TELEPHONE PARTS

PUSH BUTTON — — ARRESTERS



NO. 2A PUSH BUTTON

2A—Push button used, in Magneto telephones to ring central grounded — and parties—metallic. Also in telephone with D. C. and A.C. Generator.



NO. 2A ARRESTER

2A — Arrester, standard for all L.E. telephones. Mounted on side of cabinet with terminals inside.
2473 Bakelite Disc.
1128 Carbon Block.

central battery and magneto telephones, being furnished with various spring combinations.

Code No.	Description
3A 4 springs	2 make 1 break contact
3B 2 springs	1 make contact
3E 3 springs	2 make contacts
3C 4 springs	2 separate make contacts used on central battery and magneto telephones with anti-side tone circuit.

HOOKSWITCHES

The Hookswitch used in the wall type telephones is of unit construction. The frame mounts the contact springs, actuating trigger, etc. The

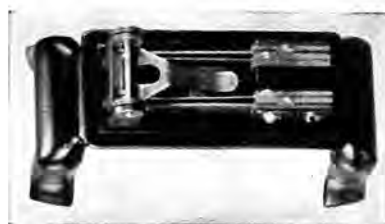


NO. 3G HOOKSWITCH

hookswitch lever is readily removed by loosening one screw. This hookswitch is used in both

HOOKSWITCH AND CRADLE

The Leich Handset Cradle is die cast of a tough and substantial alloy. It cannot be broken by dropping as the horns will bend before breaking. The hookswitch springs are mounted on a lug projecting from the cradle making a substantial arrangement which will not get out of align-



HOOKSWITCH AND CRADLE FOR DESK HANDSET TELEPHONE

ment. The large ratio lever which actuates the springs is supported on the cradle. Although the contact springs exert a heavy pressure on the contacts, they are actuated by a very light load on the actuating pin. These two facts assure a hookswitch free from either operating or contact troubles.

Code No.	Description
8369	for No. 60 telephone
8335	for No. 62 and 70 telephones

TELEPHONE PARTS

INDUCTION COILS

The Induction coils in this list have been used in the past on various Leich telephones. Although not used in the new telephones they are again listed for the customer's convenience.



NO. 1A INDUCTION COIL

Code No.	Description
1A	for Magneto Wall Telephones
3A	for Magneto Desk Telephones
6A	for Central Battery Wall Telephones
4A	for Central Battery Desk Telephones
12A	for Central Battery Telephones (booster type)

No. 18 AND 19 INDUCTION COILS



NO. 18-19 INDUCTION COIL

The No. 18 and 19 Induction Coils are used in the central battery and magneto telephones, except the desk telephones, listed in this catalog. The core is of laminated strip

steel having very low losses which improve the efficiency of the coil and the resulting transmission. The No. 18 coil is of the booster anti-side tone type and the No. 19 anti-side tone only. Both coils have powerful outgoing transmission characteristics.

The heads are of bakelite with terminals solidly riveted therein. These heads are not subject to any strain as the induction coil is mounted by brackets attached to the ends of the core strips.

Code No.	Description
18	Central Battery Induction Coil
19	Magneto Induction Coil

CONDENSERS

The Condensers used in Leich telephones are of the Mansbridge type. These condensers are well insulated and will withstand a high breakdown voltage. Although only those condensers used in telephones are listed, other sizes can be furnished on application.

Code No.	Description
3A	$\frac{1}{2}$ microfarad—sure ring condenser Magneto Telephone
26	$\frac{1}{2}$ microfarad—sure ring condenser No. 70 Telephone
25	1 microfarad—used in base of No. 62 Telephone
5	1 microfarad—used in No. 8 Bell Box
27	2-1 M. F. condenser—used in No. 8 Bell Box

TERMINAL STRIPS

The Terminal Strips used in the telephones listed in this catalog are of bakelite with the terminals riveted thereon. The terminals are provided with one and two screws for connections.



NO. 8341 TERMINAL STRIP

The No. 8341 Terminal Strip is used in the base of the No. 60, 62 and 70 telephones. It is of bakelite and has the terminals riveted thereon.

TELEPHONE PARTS

LINE TERMINAL BLOCK

This Terminal Block is used for connecting the cord of the No. 62 telephone to the line wires or for any other instrument where two pair of wires are to be connected.

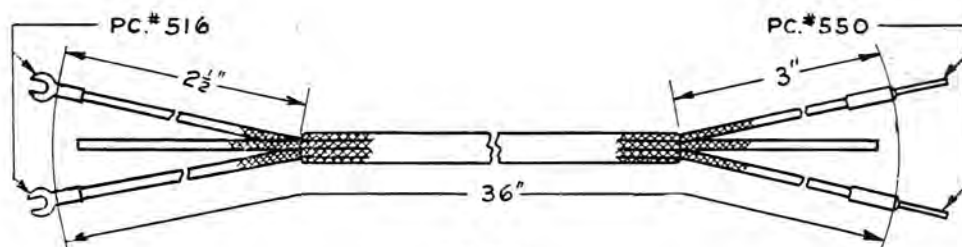
It is made of treated wood which has high insulating value and is entirely practical for the purpose.

Code No. 8 Line Terminal Block.



NO. 8 LINE TERMINAL BLOCK

CORDS



NO. 11A

The Leich Electric Co. carries a complete line of telephone and switchboard cords. On the following page is a partial list but other types and trims can be furnished.

These cords are of the moisture-proof type and are used as standard by many telephone companies. The conductors are composed of high grade copper tinsel, each conductor consisting of 18 threads, formed of three multiples of

six strands each, laid rope fashion, forming a conductor of great flexibility and conductivity.

Each conductor is insulated with two wrappings of tussah silk applied in reverse direction. This insulation is treated with a special moisture-proofing compound.

An insulation of cotton braid, corresponding to the outer braid is then applied followed by the outer braid of brown mercerized cotton.

TELEPHONE CORDS

RECEIVER CORDS

Code No.	Outer Braid	Trim	Specify Length
11A	Brown Mercerized Cotton	Spades and Pins	30 inch or 36 inch
11B	Brown Mercerized Cotton	Pins and Pins	30 inch or 36 inch
11C	Brown Mercerized Cotton	Spades and Spades	30 inch or 36 inch
11D	Brown Mercerized Cotton	Loops and Loops	30 inch or 36 inch
11E	Brown Mercerized Cotton	Pins and Loops	30 inch or 36 inch

DESK STAND CORDS

Code No.	No. Conductors	Code No.	Trim	Length
	Code No.		(Brown Mercerized Cotton Braid)	
23A	26A	24A	Pins and Spades	6 feet
23B	26B	24B	Pins and Pins	6 feet
23C	26C	24C	Spades and Spades	6 feet
23D	26D	24D	Loops and Loops	6 feet
23E	26E	24E	Pins and Loops	6 feet
23F	26F	24F	Straight Tinsel and Loops	6 feet

HANDSET UNIT CORDS

Code No.	No. Conductors	Trim	Length
38	2 Conductors	brown mercerized cotton braid	42 inches
34	3 Conductors	brown mercerized cotton braid	42 inches
39	4 Conductors	brown mercerized cotton braid, for No. 2A Magneto Handset replacement unit	60 inches

HANDSET STAND CORDS

Code No.	No. Conductors	Trim	Length
33	4 Conductors	brown mercerized cotton braid	63 inches
35	2 Conductors	brown mercerized cotton braid	63 inches
36	3 Conductors	brown mercerized cotton braid	63 inches

(See price list for quantity discounts)

TELEPHONE REPAIRS

The Leich Electric Co. is fully equipped to handle telephone repairs. Transmitters, receivers, etc., are repaired well and economically. You are advised if cost is out of line with results secured.

SWITCHBOARD EQUIPMENT

The Leich Electric Co. manufactures a line of Central Battery and Magneto Switchboards which are noted for their dependable service and fine workmanship.

Central Battery Switchboards are built in multiple and non-multiple units. The multiple switchboard is designed with a steel frame sufficiently strong to be shipped with the relay gate,

key and plug table mounted; completely wired and factory tested. Insulation consists of aligning these sections, adding the superstructure for the jack mounting and jack cables. This construction lowers the cost of installation.

Leich non-multiple Central Battery Switchboards are built in two types, standard and community.

Leich Magneto Switchboards need no introduction to the trade as many are in use giving satisfactory service in every state.

The Leich Electric Co. respectfully solicits an opportunity of quoting on your switchboard requirements. You may have a preference for certain equipment but good business would dictate the policy of making an investigation of switchboards as manufactured by "Leich" before purchasing.

LEICH PRODUCTS

SWITCHBOARDS—

Central battery multiple
Central battery non-multiple
Magneto
P. B. X.

TELEPHONES—

Central battery and magneto
Handset, wall and desk types

RINGING EQUIPMENT—

Ringling converter, operates from light circuit
Ringling converter, operates from storage battery
Harmonic converters

RELAYS—

Telephone and signaling types

BATTERIES—

Dry and storage types

CONSTRUCTION MATERIAL—

Cable, cross arms, poles, wire, etc.

GET OUR PRICES

LEICH TELEPHONE PRICE LIST

November 14, 1938

Bulletin 165

These prices are F. O. B., Genoa, Ill., and subject to change without notice. Prices net unless otherwise designated. Terms net 30 days.

HANDSET TELEPHONES—DESK TYPE

Code No.		Price
60	Anti side tone, Used with No. 8-A or B bell box	\$12.75
62	Induction coil and condenser in base, Used with any conventional ringer box	14.60
90-A	Induction coil and condenser in base, ringer in sub-base, anti-side tone, booster circuit	17.45
90-G	Coil and condenser in base, ringer and ground ringing condenser in sub-base, anti-side tone booster circuit	18.20

Handset Telephone Parts

9864	Sub-base -11 Bell Box .....	.90
8876	Sub-base only .....	.80
8880	Base plate, leather covered, with studs No. 90 telephone .....	.85
	Add for ground condenser .....	.85
8335	Cradle and hookswitch assembled (4 springs)	2.75
8341	Terminal block (8 terminals) .....	.40
8344	Base plate, leather covered, with screws No. 62 and 70 telephone .....	.65
8347	Dial opening cover .....	.35
8370	Bottom plate screws .....	.05
8372	Terminal screws (per 100) .....	.60
	Cradle attaching screws No. 8-32 x 15-8 in. oval H. M. scr. ....	.03

HANDSET TELEPHONES—WALL TYPE

BOOSTER CIRCUIT

65-A	Anti side tone metallic ringing	17.00
65-B	Anti side tone ground ringing	17.25
64-A	Anti side tone with dial blank, metallic ringing	17.00
64-B	Anti side tone with dial blank, ground ringing	17.25
78	Anti side tone answering or extension telephone	12.00

DESK STAND

51	Anti side tone desk telephone, used with No. 8-A or B bell box	8.30
1-C	Side tone, induction coil in base	9.35
1-D	With D. C. receiver	8.20

WALL TELEPHONES

TRANSMITTER AND RECEIVER

53-A	Anti side tone metallic ringing	12.20
53-B	Anti side tone ground ringing	12.45
52-A	Anti side tone with dial blank, metallic ringing	12.20
52-B	Anti side tone with dial blank, ground ringing	12.45

DESK SET BELL BOXES

Code No.		Price
3-A	2 winding coil, condenser, straight line, booster	\$ 6.60
8-A	3 winding coil, condenser, straight line	6.75
8-B	3 winding coil, condenser, ground ringing	7.00
8-R	1000 ohm ringer, no induction coil or condenser, for use with 70-R telephone	4.90
10-A	Ringer and condenser, straight line. For use with conventional circuit telephones	5.65
11-A	No induction coil, for wall mounting or on base of No. 90 telephone	5.65
	Add \$.25 to straight line prices for double condenser for ground ringing.	
	Add \$.10 for biased ringer.	
	Add \$.50 for harmonic ringer.	

MAGNETO HANDSET TELEPHONES—DESK TYPE

70-A	Induction coil in base	14.00
70-C	Induction coil and condenser in base ..	14.50
70-R	Battery signalling	14.50
72-A	Without induction coil	12.25
72-C	Without induction coil, with sure ring condenser	12.90
92-A	Induction coil in base, ringer in sub-base, anti-side tone circuit. Generator not included	16.85
92-C	Induction coil and sure ring condenser in base, ringer in sub-base. Generator not included	17.35
92-R	Battery signaling, induction coil in base, ringer in sub-base. Separate 5-point terminal block	18.10

MAGNETO WALL TELEPHONES—HANDSET

77	Answering or extension telephone	11.10
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MAGNETO COMPACT TYPE WALL TELEPHONES WITH HANDSET

86-A-1000	1000 ohm ringer	20.25
86-A-1600	1600 ohm ringer	20.40
86-A-2500	2500 ohm ringer	20.65
303-A-1000	3 bar generator 1000 ohm ringer..	20.25
303-A-1600	3 bar generator 1600 ohm ringer..	20.40
305-A-1000	5 bar generator 1000 ohm ringer..	21.00
305-A-1600	5 bar generator 1600 ohm ringer..	21.15
305-A-2500	5 bar generator 2500 ohm ringer..	21.40

Add to the price of the A telephone the price of one or more of the following equipments if specified and change code letter accordingly.

C-	Equipped with sure ring condenser ....	.65
D-	Equipped with grounding PB .....	.40
F-	Equipped with PB, pulsating current ..	.65
G-	Connected for silent ringing	no charge

MAGNETO COMPACT TYPE WALL TELEPHONE

Code No.	Price
403-A-1000 3 bar generator 1000 ohm ringer..	\$18.25
403-A-1600 3 bar generator 1600 ohm ringer..	18.40
405-A-1000 5 bar generator 1000 ohm ringer..	19.00
405-A-1600 5 bar generator 1600 ohm ringer..	19.15
405-A-2500 5 bar generator 2500 ohm ringer..	19.40

Add to the price of A telephone the price of one or more of the following equipments if specified and change code letter accordingly.

C- Equipped with sure ring condenser ....	.65
D- Equipped with grounding PB .....	.40
F- Equipped with PB, pulsating current ..	.65
G- Connected for silent ringing	no charge

**RESIDENCE TYPE MAGNETO TELEPHONE
—HANDSET**

333-A-1000 3 bar generator 1000 ohm ringer..	21.50
333-A-1600 3 bar generator 1600 ohm ringer..	21.65
335-A-1000 5 bar generator 1000 ohm ringer..	22.20
335-A-1600 5 bar generator 1600 ohm ringer..	22.35
335-A-2500 5 bar generator 2500 ohm ringer..	22.60

MAGNETO DESK STAND TELEPHONE

1-L Desk Type Telephone, used with No. 323 type generator bell boxes	8.30
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MAGNETO HANDSET REPLACEMENT UNIT

2-A Replacement Unit	6.95
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MAGNETO GENERATOR BELL BOXES

323-A-1000 3 bar generator 1000 ohm ringer..	9.95
323-A-1600 3 bar generator 1600 ohm ringer..	10.10
325-A-1000 5 bar generator 1000 ohm ringer..	10.40
325-A-1600 5 bar generator 1600 ohm ringer..	10.60
325-A-2500 5 bar generator 2500 ohm ringer..	10.85
26-A-1000 Generator Bell Box, bakelite case ..	9.45
26-A-1600 Generator Bell Box, bakelite case ..	9.60
26-A-2500 Generator Bell Box, bakelite case ..	9.85

Add to the price of the A telephone the price of one or more of the following equipments if specified and change code letter accordingly.

C- Equipped with sure ring condenser ....	.65
D- Equipped with grounding PB .....	.40
F- Equipped with PB, pulsating current ..	.65
G- Connected for silent ringing	no charge

MAGNETO EXTENSION BELL

2-A-1000 1000 ohm ringer	5.25
2-A-1600 1600 ohm ringer	5.35
2-A-2500 2500 ohm ringer	5.50

HANDSETS

1-C Central battery type	6.63
1-L Magneto type	6.65
1-L or 1C Handset with pushbutton in transmitter circuit	7.90

HANDSET PARTS

8287 Receiver diaphragm .....	.04
8292 Handset receiver	2.20
8312 C. B. Transmitter	2.40
8311 Magneto Transmitter	2.40
8347 Dial hole blank .....	.30
8348 Tel. number retaining ring .....	.05
8349 Tel. number transparent disc .....	.02
8350 Tel. number paper .....	.02
8371 Terminal screws (per 100) .....	.60
8403 Transmitter mouthpiece .....	.35
8404 Transmitter mouthpiece clamping ring ..	.22

Code No.	Price
8405 Receiver cap	\$.22
8406 Handle	1.75
8422 Receiver cord (in handle) .....	.07
8423 Receiver and transmitter cord (in handle) .....	.15
8424 Transmitter cord (in handle) .....	.08
8447 Paper ring for receiver	(per 100) .40
8410 Handset stand only	1.25

RECEIVER

2 D. C. with 36" cord	2.00
7 with 36" cord	2.20
1440 Paper rings (per 100) .....	.40
1041 Diaphragm, 2 5-32 in. diameter .....	.03

RECEIVER SHELLS, COMPOSITION

1421 Lots of 1 to 24 .....	.40
Lots of 25 to 49 .....	.33
Lots of 50 to 99 .....	.30
Lots of 100 to 249 .....	.28
Lots of 250 to 499 .....	.26
Lots of 500 and over on application	

RECEIVER CAPS, COMPOSITION

1420 Lots of 1 to 24 .....	.17
Lots of 25 to 49 .....	.135
Lots of 50 to 99 .....	.12
Lots of 100 to 249 .....	.11
Lots of 250 to 499 .....	.09
Lots of 500 and over on application	

TRANSMITTERS WITH BACKUP

1-C C. B. Metal front, mouthpiece	2.50
1-L Magneto Metal front, mouthpiece	2.50
Less backup, deduct .....	.20
Less mouthpiece, deduct .....	.09

TRANSMITTER PARTS

No. 1-C and No. 1-L Transmitter

1027 Magneto carbon chamber 3-16" stem ..	.85
2639 Magneto carbon chamber 1-4" stem ..	.85
1040 C. B. carbon chamber 3-16" stem .....	.85
2640 C. B. carbon chamber 1-4" stem .....	.85
1033 Transmitter backup .....	.25
1823 Transmitter backup, suspended .....	.50
1028 Transmitter diaphragm .....	.04
1/4" 2-56 Transmitter front screws, Doz.	.05
1/2" 2-56 Transmitter front screws, gross	.32

TRANSMITTER REPAIRS

No. 1-L or No. 1-C Transmitters

1 only .....	.65
2 to 9 .....	.52
10 to 49 .....	.49
50 to 99 .....	.47
100 to 249 .....	.45
250 up .....	.42

The above prices include rebuffering, re-nickeling where necessary, replacing granular carbon, repolishing electrodes. New electrodes are extra.
Front electrode25
Back electrode10
Complete carbon chamber75

TRANSMITTER MOUTHPIECES, COMPOSITION

1039 1"-20 thread Leich standard, used on Eureka, Monarch, Stromberg Carlson, American Electric.	
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Code No.		Price
3-N	7/8"-20 thread, used on Kellogg, Dean and Swedish American.	
28	7/8"-28 thread, used on Western Electric, Julius Andrae.	
	Lots of 1 to 49	each .09
	Lots of 50 to 99	each .08
	Lots of 100 to 499	each .07
	Lots of 500 and over on application	

TRANSMITTER ARMS

7-A	Arm less transmitter and cords .....	.50
3-A	Arm, knuckle type, mounts with wood screws .....	.55
6-A	Arm, knuckle type, mounts with machine screws .....	.55
9	Short transmitter arm No. 405 Telephone	.50

GENERATORS

3-A	3 bar, Alternating current	7.00
3-B	3 bar, Alternating and pulsating current	7.25
5-A	5 bar, Alternating current	8.50
5-B	5 bar, Alternating and pulsating current	8.75

GENERATOR PARTS

1185	Magnet .....	.50
1208	Generator Pinion Spring .....	.01
1211	Generator Gear	1.25
1214	Gear Hub Collar .....	.04
1215	Shunt Piece .....	.10
1216	Pinion Cap .....	.03
1233	Crank Handle .....	.05
1207	Generator Pinion .....	.17
1241	Gear Shaft 3-Bar Generator .....	.25
1242	Universal Shunt assembled .....	.35
1243	Alternating and Pulsating Current, Shunt assembled .....	.40
1245	Generator Crank and Handle .....	.15
1246	Commutator for Pulsating Current .....	.27
1267	Gear Shaft 4-Bar Generator .....	.24
1268	Gear Shaft 5-Bar Generator .....	.27
2489	End Plate, gear end .....	.35
2493	End Plate, shunt spring end .....	.30
1240	3-Bar Armature wound	2.00
1269	4-Bar Armature wound	2.30
1270	5-Bar Armature wound	2.40

RINGERS WITH GONGS

Straight Line Ringer

Used where exposed gongs are required

1-A-500	500 ohms	2.15
1-A-1000	1000 ohms	2.35
1-A-1600	1600 ohms	2.50
1-A-2500	2500 ohms	2.75

Straight Line Ringer

Same type as No. 1 but for enclosed use

21-A-500	500 ohms	2.15
21-A-1000	1000 ohms	2.65
21-A-1600	1600 ohms	2.90
21-A-2500	2500 ohms	3.05

Straight Line Ringer No. 90 Telephone

31-A	Ringer. Standard straight line ringer .. (equivalent impedance 1000 cycles to 1250 ohm ringer.)	2.50
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Biased Type Ringer

5-A-500	500 ohms	2.25
5-A-1000	1000 ohms	2.45
5-A-1600	1600 ohms	2.60
5-A-2500	2500 ohms	2.85

Code No.		Price
4-A-16	2500 ohms 16 cycle	\$ 3.20
4-A-33	500 ohms 33 cycle	3.20
4-A-50	500 ohms 50 cycle	3.20
4-A-66	500 ohms 66 cycle	3.20
4-B-20	1000 ohms 20 cycle	3.20
4-B-30	1000 ohms 30 cycle	3.20
4-B-42	1000 ohms 42 cycle	3.20
4-B-54	1000 ohms 54 cycle	3.20
4-B-66	1000 ohms 66 cycle	3.20

If gongs are omitted, deduct \$.25

Harmonic Ringers No. 90 Telephone

34-A and B-16	cycle harmonic ringer	3.20
34-A-33	cycle harmonic ringer	3.20
34-A-50	cycle harmonic ringer	3.20
34-A-66	cycle harmonic ringer	3.20
34-B-30	cycle harmonic ringer	3.20
34-B-42	cycle harmonic ringer	3.20
34-B-54	cycle harmonic ringer	3.20
34-B-66	cycle harmonic ringer	3.20

If gongs are omitted, deduct \$.25

RINGER COILS

		per coil
2112	250 ohm for 1-A-500 ringer .....	.70
2114	500 ohm for 1-A-1000 ringer .....	.83
2115	800 ohm for 1-A-1600 ringer .....	.95
2116	1000 ohm for 1-A-2000 ringer	1.00
2117	1250 ohm for 1-A-2500 ringer	1.20
2118	40 ohm for 3-A-80 ringer .....	.50
2426	20 ohm for 3-A buzzer .....	.50
2123	500 ohm for 5-4 & 6 ringer .....	.90
2121	250 ohm for 4 ringer .....	.87
2124	800 ohm for 5-A-1600 ringer .....	.90
2125	1000 ohm for 5-A-2000 ringer	1.15
2126	1250 ohm for 5-A-2500 ringer	1.35
8926	Coil for 31 & 16 cycle No. 34 ringer	1.00
8930	Coil for No. 34 A & B ringers	1.00

RINGER PARTS

		Each
1088	Adjusting screw 1-A ringer .....	.04
1090	Yoke spring 1-A ringer .....	.08
1092	Adjusting pivot 1-A ringer .....	.025
1093	Lock nut 1-A ringer .....	.01
1098	Magnet 1-A ringer .....	.25
1099	Stud 1-A ringer .....	.09
1115	Yoke and pivot 1-A ringer .....	.15
5213	Armature Assem., 1-A ringer .....	.25
1161	Biasing spring 5-A ringer .....	.025
1164	Spring bracket 5-A ringer .....	.15
1166	Armature 5-A ringer .....	.45
1546	Yoke 5-A ringer .....	.30
2961	Lock nut for 4-5-31-34 ringers .....	.03
5212	Armature Assem. with washers, 1-A ringer .....	.18
1086	Lock nut for gong .....	.04
1087	Hexagon nut for gong .....	.02
8500	2 1/2" Gong, brass finish .....	.125
8504	2 1/2" Gong, black finish .....	.125
8893	Yoke and pivot assembled No. 31 ringer	.15
8894	Adjusting pivot, No. 31 ringer .....	.025
8895	Adjusting pivot lock nut, No. 31 ringer	.01
8900	Armature completely assembled, No. 31 ringer .....	.25
8901	Permanent magnet, No. 31 ringer .....	.45
8918	Gong, (low pitch) .....	.125
8919	Gong, (high pitch) .....	.125

HARMONIC RINGER ARMATURES

		Price Each
8935	Armature assem., 34-A & B 16 cycle ringer	.75
8936	Armature assem., 34-A-33 cycle ringer	.75
8937	Armature assem., 34-A-50½ cycle ringer	.75
8938	Armature assem., 34-A-66¾ cycle ringer	.75
8939	Armature assem., 34-B-30 cycle ringer	.75
8940	Armature assem., 34-B-42 cycle ringer	.75
8941	Armature assem., 34-B-54 cycle ringer	.75
8942	Armature assem., 34-B-66 cycle ringer	.75

HARMONIC RINGER ARMATURES

1377	Armature 4-A-16 ringer	.75
1378	Armature 4-A-33 ringer	.75
1379	Armature 4-A-50 ringer	.75
1380	Armature 4-A-66 ringer	.75
1641	Armature 4-B-30 ringer	.75
1642	Armature 4-B-42 ringer	.75
1643	Armature 4-B-54 ringer	.75
2425	Armature 4-B-66 ringer	.75

PUSH BUTTON

2-A	Make and Break contact	.50
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TELEPHONE ARRESTERS

2-A30
2473	Bakelite disc	.04
1128	Carbon block	.08

HOOKSWITCHES

3-A	4 Springs 2 make 1 break contact	1.30
3-B	2 Springs 1 make contact	.90
3-E	3 Springs 2 make contact	1.20
3-G	4 Springs 2 make contact	1.30
8498	Hooklever for handsets, Fits No. 3 hookswitch	.40
9352	Hooklever for flush telephone	.30

HOOKSWITCH AND CRADLE

8369	Used on No. 60 telephone	2.90
8335	Used on No. 62 and No. 70 telephone	3.00

INDUCTION COILS

1-A	Magneto wall telephone, old style	.90
3-A	Magneto desk telephone, old style	.90
6-A	C. B. wall telephone, old style	1.40
4-A	C. B. desk telephone, old style	1.40
12-A	C. B. booster type, old style	1.65
18	C. B. Anti side tone, booster used on No. 62 telephone No. 8 bell box	1.90
19	Magneto Anti side tone, used on No. 303-5, No. 403-5, No. 333-5 telephones and No. 70 telephone	1.90

CONDENSERS

3-A	½ mf., used on magneto wall telephone	.65
26	½ mf., used on No. 70 telephone	.65
25	1 mf., used on No. 62 telephone	.75
5	1 mf., used on No. 8 bell box and C. B. wall telephone	.75
27	2-1 mf., in same housing, used on No. 8 bell box and C. B. wall telephone	.90
35	1 mf., used in base of No. 90 telephone	.75

LINE TERMINAL BLOCK

8-A	Two terminal covered block	.30
8-B	Three terminal covered block	.40

TERMINAL STRIPS

8341	Used on No. 60-62-70 telephones	.40
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WRENCH

		Price Each
1273	Will fit any nut on a Leich telephone	.03

BATTERY SUPPORT CLAMP

A strong clamp for holding two dry cells to a wall or surface. Attached by a wood screw15

CORDS

The cords listed are standard Leich stock cords. Cords of all sizes and termination can be furnished if the number of conductors, terminals and length, also length of trim at terminal ends, is given on order. A sample cord is very satisfactory.

SWITCHBOARD CORDS

	Length	4 ft.	5 ft.	6 ft.
3	2 Conductor tinsel	.48 ea.	.52 ea.	.56 ea.
4	3 Conductor tinsel	.66 ea.	.72 ea.	.78 ea.
5	2 Conductor steel	.54 ea.	.58 ea.	.62 ea.
6	3 Conductor steel	.68 ea.	.75 ea.	.82 ea.

RECEIVER CORDS

	Length	30 in.	36 in.
11	A-B-C-D-E-F	.19 ea.	.20 ea.

DESK STAND CORDS

23	A-B-C-D-E-F 2 Cond. 6 ft.	.30 ea.
26	A-B-C-D-E-F 3 Cond. 6 ft.	.46 ea.
24	A-B-C-D-E-F 4 Cond. 6 ft.	.57 ea.
25	A-B-C-D-E-F 5 Cond. 6 ft.	.71 ea.

OPERATOR'S CORD

31	2 Conductor, receiver	6 ft.	.63 ea.
10	1 Conductor, transmitter	4 ft.	.19 ea.
14-B	4 Conductor, breastplate	63 in.	.90 ea.
30-R-L	4 Conductor, breastplate	63 in.	.90 ea.

HANDSET TELEPHONE CORDS

33	4 Conductor, handset stand	63 in.	.57 ea.
34	3 Conductor, handset unit	42 in.	.44 ea.
35	2 Conductor, handset stand	63 in.	.30 ea.
36	3 Conductor, handset stand	63 in.	.46 ea.
38	2 Conductor, handset unit	42 in.	.30 ea.
39	4 Conductor, No. 2 replacement unit	54 in.	.59 ea.

Quantity Discounts

1 to 99	no discount
100 to 499	10% discount
500 or more	15% discount

Cords of all types may be assembled in one order to obtain the quantity discount.

Receiver and Desk Stand Cords Code

- A- Pins and spades
- B- Pins and pins
- C- Spades and spades
- D- Loops and loops
- E- Pins and loops
- F- Straight tinsel and loops

*the LEICH magneto
desk telephone and
generator box combination*

**COMBINES EXCELLENT
TRANSMISSION WITH ATTRACTIVE
MODERN APPEARANCE**



ALL BAKELITE CASE

**POWERFUL ALNICO GENERATOR
REPLACES ALL FORMER
3-, 4- AND 5-BAR MODELS**

**EXCELLENT TRANSMISSION
ON HEAVILY LOADED LINES**

RELIABLE TWO-TONED RINGER

ANTI-SIDE TONE CIRCUIT

Here's the magneto telephone you will be proud to have in your home. It's a beautiful Bakelite desk handset, combined with an attractive, modern generator box. This makes a complete magneto telephone, except for the batteries which are usually mounted in an out-of-the-way location. Clear, clean-cut transmission and reception are guaranteed, both in town and on long, heavily loaded rural lines. The Alnico generator is more powerful than the average 5-bar type, replaces all 3-, 4- and 5-bar models. Thousands of these popular magneto telephones are now in operation. They furnish good reliable service year in and year out, with a very minimum of maintenance.

ORDERING INFORMATION

Cat. No.	Description	Shipping Weights
#70-A	Magneto Desk Handset and 26-A-1600 Ohm Generator Box.	Approx. 12½ lbs.
#70-A	Magneto Desk Handset and 26-A-2500 Ohm Generator Box.	Approx. 12½ lbs.

For Sure Ring Condenser change order from #70-A to #70-C.

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1760 LUNT AVENUE • CHICAGO, 26, ILL.