

# STROMBERG-CARLSON TELEPHONE MFG. CO.

ROCHESTER, N.Y. CHICAGO, ILL.  
KANSAS CITY, MO. TORONTO, ONT.

BULLETIN NO. 1009

RURAL LINE BULLETIN

EDITION CB

## No. 896 Wall Telephones



Closed View No. 896 Wall Telephone

In this redesigned compact type wall telephone you get all of the excellent features of its predecessor with many new improvements added. The new telephone is superior to all previous types in transmission efficiency, mechanical construction and maintenance economy.

**TRANSMITTER:** Unequaled transmission efficiency is assured by the use of our standard transmitter that has carried away the honors in all competitive transmission tests in which it has been tried. It is properly designed and made of few simple parts to insure continuous good service and economy. As this transmitter contains no absorbent materials and is fitted with a moisture-proof carbon chamber, it can be used in any climate.

**RECEIVER:** Instruments of this type are equipped with our standard bi-polar receiver, which is equalled by few and excelled by none. The permanent magnet of this receiver contains neither joints, breaks nor welds and is made of special alloy steel to insure lasting field strength and high efficiency. The diaphragm is held in a true plane and with proper air gap adjustment by a broad bearing surface and our improved type of ear cap which clamps without distorting the diaphragm. Breakage of the shell will not affect the operation of this receiver.

**HAND GENERATOR:** The standard hand generators are equipped with either three, four or five bar magnets. Careful selection of the steel and improved hardening processes insure greater out-put and high efficiency through its useful life. The accurately cut gears intermesh properly and run smoothly and quietly. A pressed steel back brace prevents loosening of generator due to rough handling in transit.

**RINGER:** The long, high-impedance coils of the No. 46 Type Ringer used in telephones of this type reduce the transmission losses due to bridged instruments to a minimum. The armature is adjusted by means of a single screw and may be regulated while the ringer is in operation. The combination of long stroke and 2½ inch gongs produces a clear, loud signal with minimum operating current.

**INDUCTION COIL:** The induction coil is wound with silk insulated pure copper magnet wire impregnated after winding with a moisture-proofing compound. It is designed to operate at highest efficiency with our transmitter.

**HOOK SWITCH:** The removable lever hookswitch is positive in its operation. The contacts are securely riveted to the springs which are sufficiently long and heavy to retain their adjustment

indefinitely. High grade insulators, separators and bushings eliminate the common hook switch troubles due to poor insulation and battery leakage.

**LIGHTNING ARRESTER:** The lightning arrester is mounted on the right side of the telephone cabinet instead of on the top where it was liable to short-circuiting by placing metal articles across the terminals. The new arrester has a greater discharge surface and is more effective. The line terminals are inside of the cabinet thus adapting the telephone for both exposed and concealed wiring.

**CABINET:** The woodwork is made of selected southern white oak in our own Cabinet Making Department. It is one inch shorter and one-half inch shallower than the previous type. The door hinges to the left to allow for convenient operation of the hand generator when the door is open. The hand-rubbed dull golden oak finish does not show slight mars or scratches. The back-board screw holes are lined with metal bushings to prevent the use of over-size screws and the consequent splitting of the wood-work. The screw door lock and catch are self-aligning.

### Standard Equipments

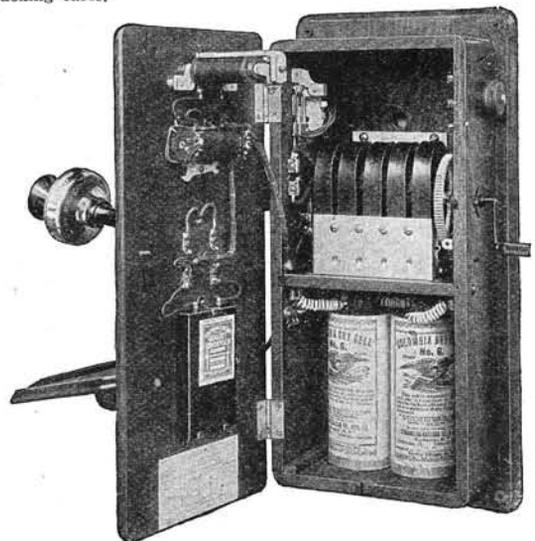
Code No.	Type	Generator	Ringers
896-A	Series	3 Bar	100 ohms
896-C	Bridging	3 Bar	500 ohms
<b>896-R</b>	<b>Bridging</b>	<b>3 Bar</b>	<b>1000 ohms</b>
896-S	Bridging	3 Bar	1600 ohms
896-D	Bridging	4 Bar	1000 ohms
896-E	Bridging	4 Bar	1600 ohms
896-F	Bridging	4 Bar	2000 ohms
896-G	Bridging	4 Bar	2500 ohms
896-H	Bridging	5 Bar	1000 ohms
<b>896-I</b>	<b>Bridging</b>	<b>5 Bar</b>	<b>1600 ohms</b>
896-J	Bridging	5 Bar	2000 ohms
896-L	Bridging	5 Bar	2500 ohms

### Harmonic Type

896-M	Harmonic	3 Bar	16 Cycles
896-N	Harmonic	3 Bar	33 Cycles
896-O	Harmonic	3 Bar	50 Cycles
896-P	Harmonic	3 Bar	66 Cycles

For use on local lines in cities and towns we recommend the use of our No. 896-R Telephone. The No. 896-I Telephone is recommended for use on long and heavily loaded country lines.

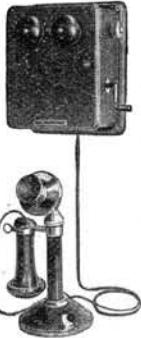
Compact type wall telephones weigh approximately 35 pounds each when packed partially knocked down in strong individual packing cases.



Open View No. 896 Wall Telephone

Rural Line Bulletin

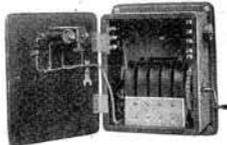
No. 1000 Desk Telephone Outfit



This desk telephone outfit comprises our No. 992 Desk Telephone and our improved No. 327 Type Magneto Bell. Recent changes made in this instrument have increased its transmission efficiency and wearing qualities. It is now more economical to operate and maintain than ever before.

This instrument gives clear, powerful transmission over circuits where others fail. Its talking equipment includes our standard transmitter and new bi-polar receiver which we positively guarantee to equal or exceed all others in transmission efficiency. The battery consumption does not exceed that of other and less efficient types of local battery telephones. In other words you give better service at the same cost.

The framework of this desk telephone is made of steel tubing and a stamped steel base which are fastened together in a practically unbreakable manner. A quarter turn of one screw allows the removal of the base plate and exposes the induction coil, terminal block and hookswitch assembly. The semi-gloss black finish of the base and column will not crack, chip off or discolor and any worn spots can be made as good as new by retouching with our air-drying black lacquer.



The No. 327 Type Magneto Bell has been improved by the use of inside terminals which adapt the set for either exposed or concealed wiring and reduce the liability of short circuits or grounds, due to contact with metallic articles. A new type of lightning arrester has been placed on the side of the box above the generator crank. This location avoids the collection of dust and consequent leakage of ringing current or high resistance grounds. All wiring is contained within a single cable form in which each wire is continuous. There are no joints, splices or hinge connections.



Standard Equipments

Code No.	Type	Generator	Ringers
1000-C	Bridging	3 Bar	500 ohms
<b>1000-R</b>	<b>Bridging</b>	<b>3 Bar</b>	<b>1000 ohms</b>
1000-S	Bridging	3 Bar	1600 ohms
1000-D	Bridging	4 Bar	1000 ohms
1000-E	Bridging	4 Bar	1600 ohms
1000-F	Bridging	4 Bar	2000 ohms
1000-G	Bridging	4 Bar	2500 ohms
1000-H	Bridging	5 Bar	1000 ohms
<b>1000-I</b>	<b>Bridging</b>	<b>5 Bar</b>	<b>1600 ohms</b>
1000-J	Bridging	5 Bar	2000 ohms
1000-L	Bridging	5 Bar	2500 ohms

Harmonic Type

Code No.	Type	Generator	Ringers
1000-M	Harmonic	3 Bar	16 Cycles
1000-N	Harmonic	3 Bar	33 Cycles
1000-O	Harmonic	3 Bar	50 Cycles
1000-Q	Harmonic	3 Bar	66 Cycles

For use on local lines in cities and towns we recommend the use of our No. 1000-R Telephone. The No. 1000-I Telephone is recommended for use on long and heavily loaded country lines.

The gross shipping weight of the Desk Telephone Outfit is approximately 26 pounds. The No. 992 Desk Telephone packed for shipment weighs approximately five pounds.

No. 1138 Combination Telephone Outfit

This type of telephone possesses the same efficiency strength and durability of our wall and desk type telephone and is preferred by a great many of our customers because of its great convenience. Although the transmitter and receiver equipment is equal in efficiency to that used in our other types of telephones, the telephone user generally gives himself better service because he speaks directly into the transmitter mouth piece and operates the transmitter at its full power and efficiency.

The complete No. 1138 Combination Outfit consists of our No. 10-L Combination Telephone and a No. 327 Magneto Bell Box the same as used with our No. 1000 Type Desk Telephones described in the preceding column. The complete outfit is used for main telephone installations in residences or offices but the No. 10-L Combination telephone is frequently used without the magneto bell box as an upstairs or bedside extension telephone set.

The combination telephone is assembled on a practically undestructible steel frame and is handsomely furnished with a semi-glossy black enamel which wears well—it will not discolor or peel off. The mouth-piece—usually fragile in this type of telephone—is made of semi-vulcanized hard rubber which possesses sufficient elasticity and resilience to make it practically unbreakable. The up-keep of this telephone is so low as to be practically negligible.



Standard Equipments

Code No.	Type	Generator	Ringers
1138-C	Bridging	3 Bar	500 ohms
<b>1138-R</b>	<b>Bridging</b>	<b>3 Bar</b>	<b>1000 ohms</b>
1138-S	Bridging	3 Bar	1600 ohms
1138-D	Bridging	4 Bar	1000 ohms
1338-E	Bridging	4 Bar	1600 ohms
1138-F	Bridging	4 Bar	2000 ohms
1138-G	Bridging	4 Bar	2500 ohms
1138-H	Bridging	5 Bar	1000 ohms
<b>1138-I</b>	<b>Bridging</b>	<b>5 Bar</b>	<b>1600 ohms</b>
1138-J	Bridging	5 Bar	2000 ohms
1138-L	Bridging	5 Bar	2500 ohms

Harmonic Type

Code No.	Type	Generator	Ringers
1138-M	Harmonic	3 Bar	16 Cycles
1138-N	Harmonic	3 Bar	33 Cycles
1138-O	Harmonic	3 Bar	50 Cycles
1138-Q	Harmonic	3 Bar	66 Cycles

For use on local lines in cities and towns we recommend the use of our No. 1138-R Telephone. The No. 1138-I Telephone is recommended for use on long and heavily loaded country lines.

Additional Equipment

Any of our local battery bridging telephones can be furnished with "Sure-Ring" condenser, "Non-Interfering" push button and with "Secret Call" equipment when specified.

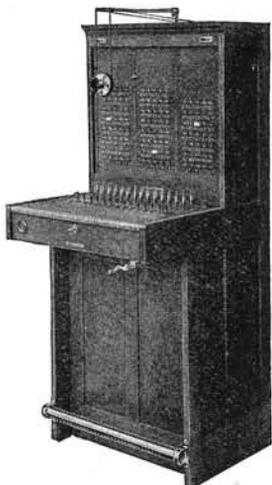
The "Sure-Ring" condenser allows all stations on the line to signal each other without difficulty when the receivers are left off the hook. Calls can be received on a telephone with a "Sure-Ring" condenser when the receiver is off the hook.

When "Non-Interfering" Push Button Equipment is specified on a standard bridging instrument A. C. Generator is used and Central may be called without signaling the other subscribers on the line, or the other subscribers may be called without signaling Central. The "Non-Interfering" push button feature is of benefit on a metallic circuit only, although telephones equipped with push button may be used on grounded lines, in which case the push button would be of no value unless the purchaser contemplates a future change of the grounded lines into a metallic circuit.

We can furnish a "Secret Call" Telephone for use on grounded lines, equipped with push button and pulsating A. C. Generator by which Central may be called without signaling the other subscribers on the line, but in calling other subscribers on the line Central is also signaled.

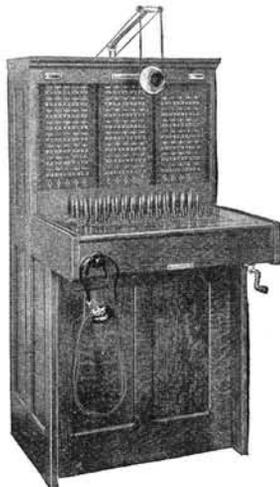
### Standard 150 Line Switchboard No. A-5629

The magneto exchange equipped with this standard A-5629 150 line single position switchboard is prepared to give its subscribers first class service. This board is equipped with Stromberg-Carlson No. 11 plug-restoring drops, the most sensitive and durable drop on the market. It contains a small number of parts and is free from trouble. Standard equipment is 150 lines and 15 cord pairs with single bridged clearing-out drop. Other cord circuits can be furnished if specified. Complete operator's equipment, night bell, hand generator, repeating coils, etc. Write us about your needs and get our specifications and prices on a board to meet your requirements. Bulletin No. 1012 containing complete information regarding our other standard types of local battery switchboards will be furnished upon request.



### Standard 100 Line Switchboard No. A-11664

This recently designed switchboard meets the need for a floor type switchboard with a capacity intermediate between our No. A-5629—150 Line Type and our No. A-5442—40 Line Wall Switchboard. It closely resembles the No. A-5629—150 Line Type but has a key-shelf which is only 30 inches above the floor thus enabling the operator to use an ordinary chair while at work. The standard cabinet is made of selected white oak and finished in our standard dull golden oak finish which does not readily show the effects of ordinary wear or slight scratches.



twelve foot length of switchboard cable is connected to each switchboard for making connections with the lightning arrester or terminal strip. Bulletin containing detailed information and estimates upon your requirements furnished upon request.

This type of switchboard cabinet has an ultimate capacity for 100 No. 11 Plug-Restoring Drop line equipment, 12 connecting cord pair equipments with single bridged clearing out drops, operators' telephone set with suspended transmitter and sanitary wire headband receiver, 5-bar hand generator, with power generator switch, night alarm bell with controlling key and all necessary batteries. Can be ordered with partial equipment to fit the immediate requirements of the system with which it is to be used. A

### Standard 40 Line Switchboard No. A-5442

This type of wall switchboard is well suited to the requirements of small systems if the traffic to be handled by the central exchanges is not great enough to warrant the undivided services of an operator. The cabinet is designed to mount upon a wall and is arranged with the front section hinged to a backboard so that the apparatus is accessible. The standard woodwork is oak with our regular dull golden oak switchboard finish.

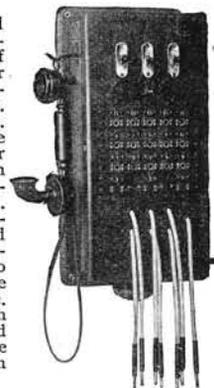
The cabinet has an ultimate capacity for 40 No. 11 Plug-Restoring Drop Line equipments, 5 pairs of connecting cords with single bridged clearing-out drops, operator's telephone set with suspended type transmitter and sanitary wire headband receiver, 5-bar hand generator with power generator switch, night alarm bell and all necessary batteries. Each switchboard furnished with 12 feet of switchboard cable attached ready for connection with the lightning arrester or terminal strip. The purchaser may order this switchboard with partial equipment of line and connecting cord circuits if desired. Literature with detailed description and prices upon customer's requirements will be furnished upon application to our nearest office.



### 15 Line Drop Switchboard No. A-11741

A most compact 15 line switchboard equipped with our No. 11 Plug Restoring Drops and associated apparatus of the same kind that is used in our larger type of switchboard. The cabinet occupies the same wall space as our No. 896 telephone and is slightly deeper. It is regularly furnished with 15 line equipments, 3 connecting cord pair equipments, operator's combination telephone set, night alarm bell with controlling switch and one answering cord. The regular connecting cord pair equipments are provided with ringing and listening keys and the extra cord is connected to the operator's telephone so that calls can be answered when the connecting cord equipments are in use.

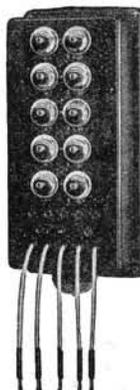
This switchboard is furnished with twelve feet of fifteen pair switchboard cable with all connections made to the switchboard ready for installation in the purchaser's exchange.



### 5 Line Ringer Switchboard No. A-11740

This is an excellent equipment for the small community telephone system. It is designed to mount on a wall alongside of one of our No. 896 type wall telephones which is used as the operator's telephones equipment. The switchboard is regularly furnished with five 1600 ohm ringer signals with drop shutter indicators and the associated line jacks. A night alarm bell and controlling switch is connected with the shutter indicators to give a continuous ring at night or at other times when required. The switchboard is furnished with twelve feet of fifteen pair switchboard cable attached.

Two pairs of connecting cords and plugs are provided for making connections between the various lines. The operator answers the calls with a single cord equipment which is connected with the telephone set. Connections are supervised by means of listening jacks associated with each connecting cord equipment.



Rural Line Bulletin

**No. 922 Switching Telephone**



Improve the service on the heavily loaded telephone lines by dividing the lines with this No. 922 five-line Combination Switching Telephone. It often happens that after a telephone line is built there are so many people desiring a telephone that it is impossible to put them all on one line and still give efficient service. In such cases the Switching Telephone is invaluable. Have you need for this telephone in your system? Send for further information—now!

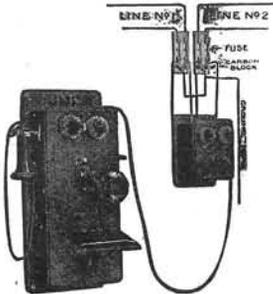
Code No.	Generator	Ringer
921	5 Bar	1000 ohm
922	5 Bar	1600 ohm
923	5 Bar	2000 ohm

Shipping weight approximately fifty pounds. Specify additional extension bells for each of the lines other than Line No. 3, as listed under the No. 300 extension bell.

**Two-Line Switching Device**

When a heavily loaded party line is to be divided into two sections, use the Stromberg-Carlson Switching Device so that parties on each end of the line can communicate satisfactorily. The illustration shows the set when used in connection with the No. 896 Compact Type Wall Telephone. The price is very reasonable.

The No. 2 Two-Line Switching Device is equipped with 1600 ohm ringers, 3 jacks, cord and plug. The No. 8 Two-Line Switching Device is equipped with 1600 ohm ringers, two-way connecting key and listening key. Shipping weight approximately five pounds.



**Extension Bells**

Many important telephone calls are not received because the subscriber is in some other part of the premises where the regular telephone bell cannot be heard. The use of an extension bell greatly reduces the number of lost calls as it can be placed in any part of the home or office and connected to the main telephone by a single pair of wires. In choosing an extension bell the purchaser should be careful to select the one equipped with ringers of the same resistance as those in the main telephone with which it is to be used so that both bells will ring properly.

**No. 300 Extension Bells**

This equipment consists of a standard telephone ringer mounted on a dull golden oak finished cabinet with terminals for connecting wires leading to the main telephone. As the equipment is not weatherproof it should be used only for indoor use. It gives a clear loud ring the same as our regular telephones.



Code No.	Resistance of Ringers
300-A	100 ohms
300-D	1000 ohms
300-E	1600 ohms
300-F	2000 ohms
300-G	2500 ohms

Weight packed for shipment approximately 4 pounds each

**No. 962 Loud Ringing Extension Bells**



The rural subscriber will find this loud-ringing extension bell very convenient and serviceable. When mounted on the side of a barn or other farm building and connected to the house telephone it gives a clear loud ring whenever the telephone rings.

The No. 962 Extension Bell is of all metal construction, absolutely waterproof and practically indestructible. The gongs are each eight inches in diameter and are triple zinc plated to prevent rusting. Carried in stock with coils wound to either 1000 or 1600 ohms resistance. Special resistances wound to order. When ordering always specify ringer coil resistance the same as in your telephone to insure most efficient operation. Shipping weight 17 pounds.

**No. 965 Telephone**



A battery call telephone for lines not over 1500 feet long. Just the thing for short house to barn communication.

Equipped throughout with our standard high quality apparatus. Requires a three wire circuit and operates from 4 dry batteries. Simple to install and as reliable as an ordinary door bell.

Shipping weight approximately 7 pounds

**No. 844-E Test Set**

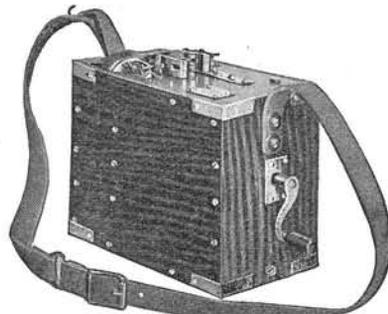
Get your linemen this compact, light weight magneto Test Set. The buzzer wound to 1600 ohms and equipped with a powerful 4-bar generator, standard transmitter and receiver. Durable and accessible. Equipped with hand or shoulder strap. Rigidly assembled and built to withstand hard use outdoors. Weighs only thirteen pounds with batteries, packed for shipment approximately nineteen pounds.

Test Set uses No. 790 (2 cell unit) Eveready Tungsten battery.



**The "Stewart" Test Set**

It tells which way and how far trouble is from tester, without opening the line—which means you can drive direct to the point of



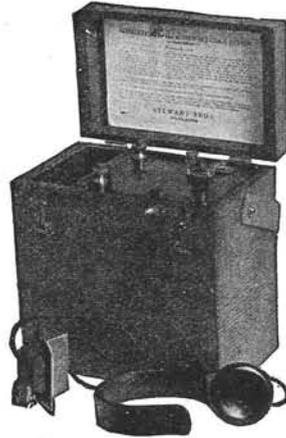
trouble. If you are interested in cutting down the expense of clearing trouble, order one of these sets on trial and be convinced. It will solve the problem of testing.

Shipping weight fourteen pounds.

### Type "L" Stewart Cable Tester

This cable tester is used by telephone companies everywhere for locating trouble in telephone cables. It locates "grounds" "crosses" and short circuits to an inch so that the cable may be opened at that point and the fault corrected at minimum expense. It is exceptionally valuable for locating spots of low insulation in cables which have become damp through injury to the cable sheath. This instrument will save its cost the first year and is very simple to operate. We will send a Type "L" Stewart cable tester on ten days' trial. Satisfaction guaranteed.

Shipping weight fourteen pounds.



### No. 7-B Transmitter



This is the transmitter with which we regularly equip all of our local battery telephones. It does not get out of order and is guaranteed to equal or exceed all other types in speech transmitting power and efficiency. It is constructed of a few simple parts all made in our own factory including the carbon which is ground and refined by a method invented solely for the production of carbon for telephone purposes. As no absorbent materials are used in any part it is not affected by moisture and will give satisfactory service in every climate.

No. 7-B Transmitter for local battery telephones.  
No. 8-B Transmitter for local battery switchboards (same as No. 7-B but arranged for transmitter cord connections).  
Shipping weight approximately one pound.

### No. 27-A Receiver

Our No. 27-A Receiver is a fitting "talking" mate for our standard transmitter. It is a scientifically designed and constructed instrument which will faithfully reproduce the distant speaker's voice in its natural tones. It is provided with a one piece permanent magnet made of high quality magnet steel to insure lasting high efficiency equal or in excess of all other kinds. The flexible cord connections are made inside of the shell where they cannot work loose. Breakage of the receiver shell will not interfere with its operation. Furnished with either composition or hard rubber shells and with No. R-2-E-36 inch green silk covered cord attached.



### No. 34 Hookswitch

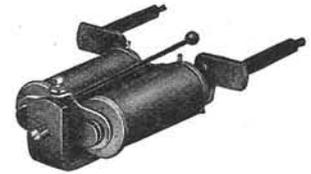


The reliable hookswitch that is used in our standard Code No. 896 Compact Type Wall Telephone. This hookswitch is provided with German silver springs having hand riveted contacts and hard rubber insulation. All spring terminals point downward so that they are readily accessible. No tools are

required to remove the switchhook from the cabinet.  
No. 34-A Hookswitch for Bridging Telephones.  
No. 34-B Hookswitch for Series Telephones.  
Shipping weight approximately 8 oz.

### No. 46 Type Ringer

The No. 46 Type straight alternating current ringer is for use on all standard telephones of any resistance. The complete adjustment is secured by a hexagon head screw located at the bottom of the ringer. The clapper rod adjustment is independent of the ringer mounting plate, preventing any change in adjustment of the armature, due to variations or shrinkage in the woodwork. This ringer always works.



Code No.	Ringer Resistance
No. 46-A Ringer	1000 ohm
No. 46-C Ringer	1600 ohm
No. 46-E Ringer	2000 ohm
No. 46-F Ringer	2500 ohm
No. 46-H Ringer	100 ohm

Shipping weight approximately 1 lb.  
Cap screws and gongs with off-center drilling for adjustment are not included in price of ringer.

### "Sure Ring" Condenser

When one subscriber on a rural party line leaves the receiver off the hook when the telephone is not in use the other subscribers have difficulty in signalling each other and central. Our "Sure-Ring" condenser will stop this trouble. All Stromberg-Carlson rural line telephones are wired for this equipment and its installation can be made in a few moments. This condenser can be used in any other make of telephones.

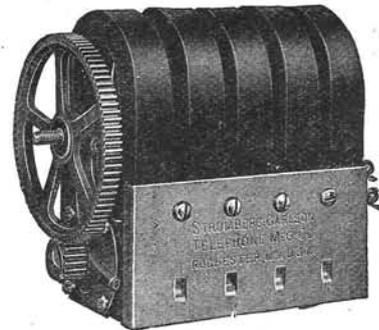
No. 26½ micro-farad "Sure-Ring" condenser for use in our old style compact wall telephones.

No. 26-T½ micro-farad "Sure-Ring" condenser with Fahrenstock terminals for new type compact wall telephones.

Shipping weight 10 ounces.



### Hand Generators



Stromberg-Carlson generators are as carefully constructed as a big power house dynamo and will give continuous good service indefinitely. The magnets are made of a special high quality magnet steel which retains its strong magnetic qualities. The armature is built up of thin sheet iron laminations and is wound with our high quality silk insulated magnet wire. The gear wheels are made with machine cut gear teeth which fit perfectly and run quietly and easily.

If you are looking for extra powerful generators our equipment will thoroughly satisfy you.

### Hand Generators for Telephones

- No. 20 3 Bar Series Hand Generator
- No. 22 3 Bar Bridging Hand Generator
- No. 23 4 Bar Bridging Hand Generator
- No. 25 5 Bar Bridging Hand Generator
- No. 40 5 Bar Bridging Hand Generator, Pulsating Current, for "Secret Call" Telephone.

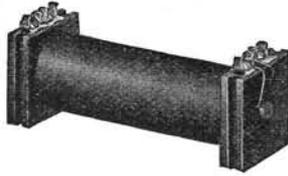
### For Switchboard Use

- No. 57 5 Bar Switchboard Hand Generator
- Shipping weight from 8 to 12 pounds.

Rural Line Bulletin

Induction Coils

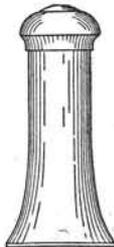
Our induction coils are scientifically designed and wound to give maximum efficiency when used with our standard types of transmitters and receivers. If your telephones are not "talking" clearly and distinctly equip them with our transmission apparatus. The coils consist of a core made up of soft iron wires wound with finest quality silk insulated magnet wire.



The spool heads will not work loose or come off.  
 No. 20-A for Local Battery Wall Telephones  
 No. 39-A for mounting in base of No. 992 desk telephones.  
 Shipping weight approximately 5 ounces.

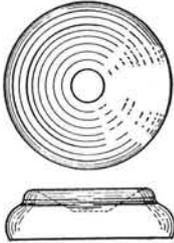
Receiver Shell

Our Pc. No. 7784 Receiver Shell which is used on our Nos. 6, 14, 21, 27 and 28 Receivers is made of hard composition which will not discolor while in service. Shipping weight approximately 6 ounces.



Ear Caps

Pc. No. 11171 Composition Ear Cap is used on our Nos. 6, 14, 21, 27 and 28 Receivers. It is designed to fit the average ear comfortably and to exclude outside sounds. Shipping weight approximately 4 ounces.



Pc. No. 11532 Composition Ear Cap fits our Nos. 5, 17 and 20 Operator's Receivers. Shipping weight approximately 4 ounces.

Mouthpieces

Pc. No. 5345 Composition mouthpiece fits all standard Stromberg-Carlson transmitters also American Electric, International and Cracraft-Leich transmitters. Shipping weight 2 ounces.

Pc. No. 9070 Sanitary glass mouth piece is preferred by many telephone users because it can be readily cleaned and sterilized by dipping in boiling hot water. Shipping weight 2 ounces.



Cords

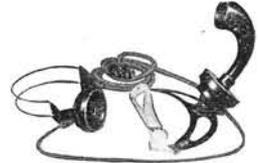
Often only a new cord is needed to restore a telephone to service. Stromberg cords are carefully made in our own factory of pure copper tinsel conductors covered by best insulation and are made for service. The following types of cords are regularly used by most rural telephone systems:

- No. R2E 33 in. 2-conductor silk receiver cord.
- No. D3A 6 ft. 3-conductor silk cord for 992 desk stand.
- No. T1F 11 in. single conductor cotton transmitter cord for No. 896 type telephone.
- No. C4A 4½ ft. 4-conductor cord for No. 10-L Combination Phone.
- No. O1A 5 ft. single conductor operator's transmitter cord.
- No. O4C 5 ft. 4-conductor cord for operator's set (breast plate type).
- No. O2F 6 ft. 2-conductor cord for operator's receiver.

Duratex switchboard cords have low resistance, last long and are made moisture-proof. They increase the speed of the operator.  
 S-23-I 6 ft. 2-conductor switchboard cords for No. 42 plug.  
 S-22-C 6 ft. 2-conductor switchboard cords for No. 36 plug.  
 Let us submit samples and quote prices. We make cords of any length, size and end finish.

Switchboard Operator's Set

Our No. 1-L Operator's Breast Plate type telephone set is light, comfortable for the operator to wear and highly efficient. There are no fragile parts to break or wear out. The complete set consists of breast plate transmitter, head receiver with sanitary headband and connected by a four-conductor flexible cord to a No. 23 four-point plug. Suitable for use with switchboards of any make.



No. 93 four-point jack is not included in the price of set and should be ordered extra.

Shipping weight of No. 1-L Operator's Set approximately 2 pounds. No. 93 jack only 3 ounces.

No. 20-A Operator's Receiver

No 20-A operator's receiver with sanitary wire headband which will not catch the hair, furnished with six foot cord attached, but no plug. Can be used on all makes of switchboard.



No. 40 Plug and No. 58 Jack

The No. 40 Plug is used with No. 20-A operator's head set for switchboard use. Shipping weight 4 oz.

No. 58 Jack for use with No. 40 Plug. Shipping weight 3 oz.



Ringing and Listening Keys

The accompanying illustration shows our standard No. 173 Ringing and Listening Key which is used on nearly all Stromberg-Carlson local battery switchboards. It is equipped with long, heavy german silver springs which hold their tension and adjustment. Each spring is fitted with a riveted platinum contact point which insures positive operation.

When ordering keys of this type be sure to specify how they are to be mounted so that key mounting plates of proper design and length will be furnished.

Shipping weight approximately 6 ounces each.



Switchboard Plugs



Our switchboard plugs are made on jeweler's lathes and gauged to a ten-thousandth of an inch. Mechanically strong and heavily insulated to withstand hard service.

Code No. 42 Switchboard plug fits our standard type No. 11 Drops used in our local battery switchboards. Shipping weight 2 ounces.

### Plug-Restoring Drops



Our No. 11 Plug-Restoring Drop is the most efficient, most sensitive and most compact local battery switchboard line equipment. It includes in its assembly as a complete unit both the line drop and the associated double cut-off jack. Furnished in strips of five on a steel mounting plate ready for installation in the switchboard. Standard resistance of drop coil is 500 ohms.

Shipping weight of five No. 11 Plug-Restoring Drops mounted approximately 5 pounds.

### Operators' Chairs



No. 1160

The operator can do better work with a comfortable chair. These chairs have been designed especially for switchboard use.

No. 1160 is furnished with adjustments 18" to 24", made of Bessemer steel rods twisted and interwoven so as to give the greatest strength and rigidity.

The seat can be raised or lowered and the back may be moved in or out, or up or down as desired.

The list No. 1242 is made of birch with imitation mahogany finish and woven cane seat. When screwed down it has a height of 18" with a 4" seat adjustment.

Shipping weight approximately 50 pounds.



No. 1242

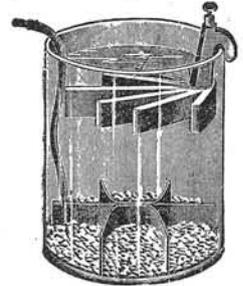
### Dry Batteries



Tests made in our electrical laboratory show that the No. 6 Columbia Dry Batteries are most suitable for telephone purposes. We regularly ship this type of battery to our customers unless otherwise specified in their orders. We sell immense quantities of these cells and as a natural consequence we always have a fresh stock and our customers receive cells having a high amperage and long lasting qualities. Sold in any quantity although it is most economical to purchase barrel lots. A barrel contains 125 cells and weighs 300 pounds.

### Crowfoot Gravity Battery

This is the standard type of battery for all closed circuit work, such as operator's switchboard transmitter. We use the best glass jars with heavy zincs and coppers.



List No. 1126 cell complete less the blue vitriol, size 6x8 inches.

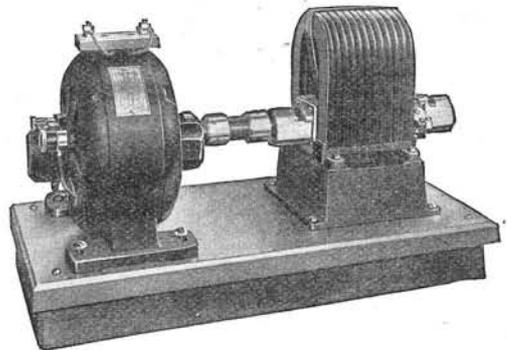
List No. 1127 Zinc.

List No. 1128 Copper.

List No. 1129 glass jar.

List No. 1268 blue vitriol.

### Ringin Generator



The above illustration shows the motor-generator which we recommend for the generation of ringing current in telephone exchanges where electric power is available. The outfit consists of an A.C. or D.C. motor direct coupled to a magneto generator. Furnished for motors for any standard voltage and with generators of various capacities as listed in price sheet supplement.

Shipping weight approximately 90 lbs.

We are also prepared to furnish the magneto generator equipped with pulley so that it can be driven from machinery shafting or other source of power.

Shipping weight approximately 45 lbs.

### Rubber and Leaded Telephone Cables

For bringing the lines into the exchange many telephone companies use rubber insulated and leaded cable, as it eliminates the necessity of making pot heads. We furnish cables made of No. 19 B&S gauge tinned conductors each insulated with high grade rubber to 3-32 of an inch, twisted into pairs, taped over the core and covered with lead sheath.

List No.	No. Pairs	Thickness lead sheath— inches	Approximate outside diam.—inches
112	25	1-16	1-1-8
114	50	5-64	1-1-2
116	100	7-64	2-1-32

### Rubber and Braided Cable

Specifications are the same as for lead encased cables with the outside braid saturated with a weather-proof compound.

List No.	No. Pairs	Approx. Outside Diam.
645	25	1 inch
647	50	1-3-8
649	100	1-7-8

We are also prepared to furnish paper and leaded telephone cables, and wool cable for terminating cables on racks.

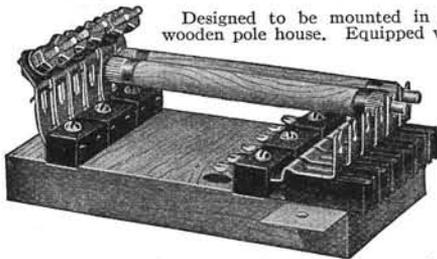
Rural Line Bulletin

**Cook Pole Cable House**

The Cook Cable House is substantially made of a good grade of 1 3/8" pine lumber well joined. It is then painted to render it thoroughly water-proof. Provided with two hinged doors which, when closed, rest against a rubber gasket extending along the open side.

- List No. 1929 25 pair capacity
- List No. 1930 50 pair capacity
- List No. 1931 100 pair capacity

**Type H-19 Protector Strip**



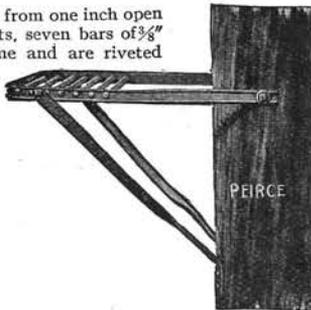
Designed to be mounted in the ordinary wooden pole house. Equipped with standard 5 ampere A-7 line fuses and specially treated carbon block lightning arresters. H-19 Protectors are furnished, 20 pairs per strip complete with fuses.

Weight 12 pounds per strip.

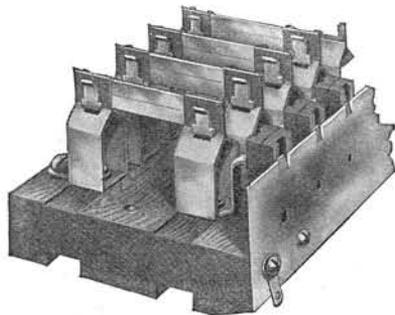
**Pole Seats**

Frames and braces made from one inch open hearth steel channel. Seats, seven bars of 3/8" steel project through frame and are riveted within channel. The bars are placed corners up to prevent slipping.

- List No. 1901 No. 3 Painted, 16 lbs.
- List No. 1902 No. 3 Galvanized, 16 lbs.
- List No. 1903 No. 4 Painted, 16 lbs.
- List No. 1904 No. 4 Galvanized, 16 lbs.



**No. 69 Switchboard Arrester**



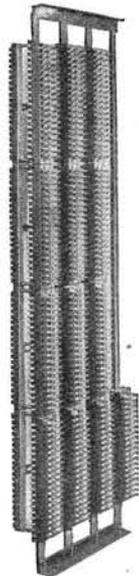
This improved arrester is designed primarily for local battery exchange installations to furnish adequate protection against abnormal currents and high potential discharges due to lightning. It is highly efficient, thoroughly practical, and its cost is well within the reach of every switchboard purchaser.

The No. 69 Switchboard Arrester consists of two elements, viz: the Pc. No. 12606 arrester strip and the Pc. No. 12607 jumper strip. The arrester strip consists of a hard maple base, 11

inches long by 3 1/4 inches wide, having mounted thereon 10 pairs of carbon block arresters and fuse mountings arranged for our List No. 568 copper terminal mica enclosed fuses. The units are spaced upon 1/2 inch centers. A ground strip runs the full length of the strip and is provided with a connector lug at either end. Screw terminals are provided on the jumper wire side and soldered terminals on the switchboard side. Holes are drilled in the base along side of the jumper wire terminals for "fanning-out" the wires.

Pc. No. 12607 Jumper Wire consists of a hard maple base, 11 inches long by 1 3/8 inches wide with 10 pairs of connectors spaced upon 1/2 inch centers. The line cable side is arranged for soldered connections and the jumper wire side with screw terminals.

The arrester and jumper strip units are of convenient size for the growing exchange and are arranged for mounting upon a wall or on vertical iron distributing frame sections of 50, 100 or 150 line capacities, as desired. Channel iron distributing frames for No. 69 arresters are made in vertical sections 6' 6" high and arranged for mounting either 50, 100 or 150 pairs of arresters and jumper strips. When a greater equipment is required, two or more vertical sections are installed side by side.



**Ground Rods**

Every telephone lightning arrester should have a good ground connection. Where water or gas pipes are not available for grounding purposes our List No. 258 Galvanized Ground Rod should be driven into the earth outside the house in which the telephone is installed and connected to the telephone by No. 1613 Rubber Covered Telephone Wire.

List No. 258 Galvanized Ground Rod is a 6 ft. by 1/2 in. steel rod sharpened at one end and with hole drilled through the other end. Can also be furnished with a 12 in. annealed copper wire attached. Shipping weight 4 pounds.

**Aerial Rings or Cable Hangers**



Practically all of the larger telephone companies have adopted this form of cable hanger as their standard for aerial cable construction. List No. 1907 1 3/4" inside diameter will take all sizes of cables up to and including 120 pair No. 22 Gauge and 60 pair No. 19 Gauge.

List No. 1907 Rings weigh 13 lbs. per thousand. List No. 1914 Pliers are required for attaching rings to the messenger wire.

**Paragon Ground Cone**



Ideal for grounding lightning arresters of all kinds, pole cable terminals, distributing and protector frames and toll line arresters, etc. Furnished complete with charcoal and with braided hollow copper cable into which the ground wire may be soldered. Cone is made of perforated sheet of pure copper. Charcoal absorbs moisture and keeps the earth around the cone always moist insuring a perfect and permanent ground.

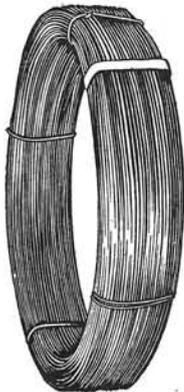
List No.	Length.	Gauge.
1636-A	1 ft.	No. 21
1637-A	2 ft.	No. 21

### Enameled Bridle or Distributing Rings

These rings are very convenient and are approved and being used by the largest and most progressive telephone companies. Made of best quality of iron heavily coated with tough glass enamel which prevents rusting. Wires are readily inserted or removed through opening.

- List No.  
 1213 Style A Size 1 3/8" Eye, 1 1/4" Shank  
 1214 Style C Size 1 1/4" Eye, 1 1/4" Shank  
 1215 Style E Size 5/8" Eye, 7/8" Shank  
 1216 Style F Size 3" Eye, 1 1/4" Shank  
 Weight 4 to 10 pounds per 100

Other sizes and designs with machine screw threads for iron switchboard frames, etc., to order.



### Double Galvanized Telephone Wire

Not ordinary fence wire, but wire drawn especially for telephone purposes. It has a high conductivity and excellent tensile strength. Galvanizing is evenly applied and wire will not break easily when making splices.

Furnished in three grades, extra BB, BB and Steel.

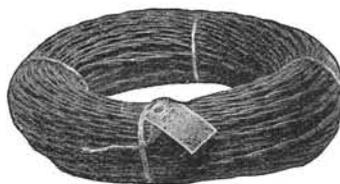
No. 6 weighs 573 lbs. per mile  
 No. 12 weighs 165 lbs. per mile.

No. 14 weighs 96 lbs. per mile.  
 Put up in 1/2 mile coils, except No. 6 which comes in 1/4 mile coils.

### Iron Drop Wire

Possesses very high tensile strength. It will not sag or break in the heaviest sleet storms, nor the hottest summer sun. The conductor is made of special alloy. It is tinned to prevent rust, insulated by a special rubber compound and protected by a heavy saturated braid.

It is the ideal drop wire.



### Duplex

List No. 1600 No. 18 B. W. G. Iron Wire No. 16 B. & S.

### Single

List No. 1603 No. 18 B. W. G. Iron Wire No. 16 B. & S.  
 Use Iron wire instead of weather-proof copper wire between houses and terminal poles and save money.

### Weather-Proof Insulated Iron Tree Wire

Used where property owners will not allow trimming of trees. Made with extra heavy weather-proof insulation to withstand abrasion with limbs of trees.

Put up in 1/2-mile coils.

List No.	Approximate Weight per Coil
27 No. 12 B. W. G. double braid	112
28 No. 14 B. W. G. double braid	72
1598 No. 12 B. W. G. triplet braid	130
1599 No. 14 B. W. G. triplet braid	87

### Rubber Covered Telephone Wire

List No. 1613 single conductor No. 16 B. & S. Gauge Copper Wire, braided and saturated insulation. Used in making connections from lightning protector to ground rod.

List No. 671 double conductor No. 19 B. & S. Gauge Copper Wire with oak or olive green braid. For making connections from lightning protector to telephone in metallic circuits, and for all other inside wiring where a twisted pair conductor is required. One conductor is distinguished by green thread in braid.

### Single or Double Galvanized Steel Strand

For supporting cable. Composed of seven wires twisted together.

List No.	7 Galvanized Wires of	Diam. in Inches.	Weight per 100 feet.	Strength In Lbs.
920	8	1/2	50	8500
921	10	7-16	38	6500
922	11	3/4	28	5000
923	12	5-16	19 1/4	3800
924	14	1/2	12 1/2	2300

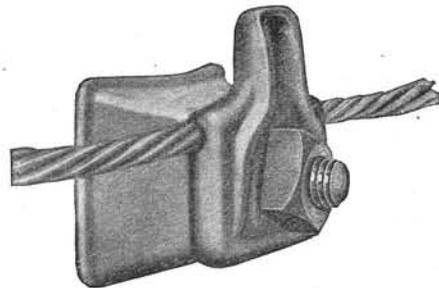
### Anchor Guy Rod



List No. 903 Anchor Guy Rod Galvanized.

Furnished with square nut, size 5/8"x6 ft. galvanized. Weight 7 pounds.

### Messenger Support



A galvanized non-breakable hanger that will hold strand securely and is safe for both men and cable. Made for 5-16 inch, 3/8 inch and larger strands. Specify size of strand to be used when ordering.

Weight 150 pounds per hundred.

### Galvanized Steel Guy Clamps



A durable rolled steel clamp for fastening or dead-ending guy strands and cables.

List No.	Size	Weight per hundred
List No. 205	2 bolt 3 inch	110 lbs.
List No. 204	3 bolt 4 inch	150 lbs.

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Wire Connector



This connector is manufactured accurately to size of the best grade of pure copper. Guaranteed both as to quality and workmanship.

- List No. 1057 For Iron wire No. 14 B. W. G. 30 lbs. per 1000  
 List No. 1056 For Iron wire No. 12 B. W. G. 35 lbs. per 1000  
 List No. 1059 For Copper wire No. 14 B. & S. 22 lbs. per 1000  
 List No. 1058 For Copper wire No. 12 B. & S. 25 lbs. per 1000

Matthews Scrulix Anchors



The guaranteed anchor. They screw down, no digging, no filling, no tamping.

- 5" anchor. Weight 6½ lbs.  
 6" anchor. Weight 10 lbs.  
 7" anchor. Weight 15 lbs.

A No. 567 wrench must be used with above anchors. This is the cheapest method of anchoring guy wires.

Telephone Cross Arms



These cross arms are standard grade yellow pine, free from loose or unsound knots or other defects which will injure the arm. Painted red or dipped in creosote. Finished size 2¼"x3¾"; bored for 1¼" pins, two ¾" brace bolts and ½" center bolt.

- Weight of Each  
 4 pin 42" 11½ lbs.  
 6 pin 62" 16.8 lbs.  
 8 pin 82" 22.2 lbs.  
 10 pin 102" 27½ lbs.

Prices on Fir., 75% Heart, all Heart cross arms, etc., in quantities from other shipping points quoted on application.

Carriage Bolts



For fastening cross arm braces to cross arm. Length 3½", diameter ¾", galvanized.

Machine Bolts



For fastening cross arm to pole. Length 10" diameter ½", galvanized. Eleven pounds per 100.

Lag Screws



For fastening braces to poles. Length 4", diameter ½", galvanized. 25 pounds per 100.

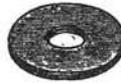
Cross Arm Braces



Absolutely necessary in good cross arm construction. Made of stiff, galvanized Bessemer steel, full weight and size. Punched to take one ½" lag screw and one ½" bolt.

- List No.  
 140 Cross Arm Brace, 20" 107 lbs, 100  
 144 Cross Arm Brace, 24" 223 lbs, 100  
 851 Cross Arm Brace, 28" 260 lbs, 100  
 Other size braces furnished on request.

Washers



List No. 859 Square Washer for machine bolts, galvanized 2¼"x2¼"x3-16" for ½" bolt Weight 17 pounds per 100.

List No. 155 Round Washer for lag screws galvanized, 9-16" for ½" bolt, Weight 17 pounds per 100.

Staples

Insulated saddle staples are indispensable for inside wiring. In using ordinary staples there is danger of driving the staple through the insulation, thereby causing a short circuit. With insulated saddle staples the wiring can be done quicker and without fear of doing damage. It is the sensible staple for inside wiring.

- List No.  
 1085 No. 1 ½ in. long  
 1086 No. 3 ¾ in. long  
 1087 No. 5 ¾ in. long  
 1088 No. 7 ¾ in. long

Nos. 1086 and 1088 are recommended for general use.



Pony Glass Insulators



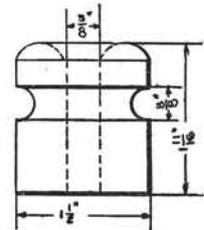
The List No. 15 is the insulator most used, weight per 1,000 packed, 675 pounds—standard package contains 400 insulators.

List 15 Single Groove. These insulators are properly annealed in the making and will not crack while in service due to temperature changes.

List 16, same as No. 15 but with double wire grooves.

Knobs

List No. 20 porcelain knobs, standard package contains 2,000 knobs, weight per 1,000 two hundred pounds. No. 15, 3-inch Flat Head Screws for above knobs.



Porcelain Tubes



Used in carrying wires through sidings, partitions, etc. Outside diameter 9-16 inch, inside diameter 5-16 inch. Furnished in lengths from 3 to 24 inches. List No. 1222, 8-inch standard.

### Wood Pins



List No.  
7 Oak Pins, painted,  $1\frac{1}{4}'' \times 8''$   
8 Locust pins unpainted  $1\frac{1}{4}'' \times 8''$   
32 pounds per 100

### Wood Brackets

Painted oak telephone brackets made from selected live oak.

Weight 70 pounds per 100.

List No. 13 brackets,  $1\frac{1}{2}'' \times 2'' \times 12''$ .

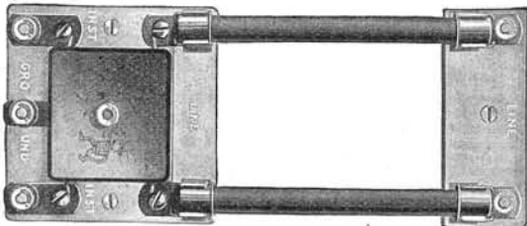
List No. 1563 brackets  $1\frac{1}{2}'' \times 2'' \times 10''$ .

### Half and Half Solder



Used principally in cable maintenance work. List No. 1497 Half and Half Solder, in bars weighing about  $1\frac{1}{2}$  pounds.

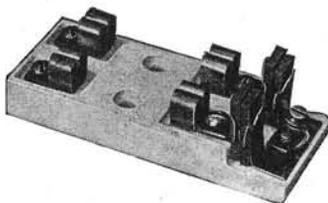
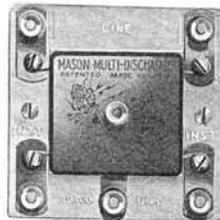
### No. 67 Mason Arrester



This efficient arrester consists of a carbon block arrester and tubular fuse protector combined in a single piece of apparatus. The carbon blocks of the arrester are surrounded by patented multi-discharge coils consisting of many turns of bare wires formed in square coils, each turn having four sharp angles. When properly connected and well-grounded it is practically impossible for ordinary lightning discharges to pass through these coils. The air-gap is between the coils of wire and the carbon making it impossible for carbon dust to collect and cause trouble. Furnished complete with fuses. Shipping weight approximately  $1\frac{1}{2}$  pounds.

### No. 66 Mason Arrester

This consists of the carbon block arrester part of the No. 67 type and is intended for use in localities where there are no electric power, trolley, or lighting circuits liable to contact with the telephone wires. The No. 66 arrester as designed for lightning protection only and for this purpose is very effective. Shipping weight approximately one pound.



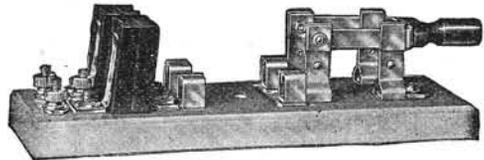
### Protectors

List No. 560 single pole Western Union Type fuse and carbon lightning arrester. Weight 8 ozs.

List No. 564 double pole Western Union Type fuse and carbon lightning arrester. Weight 10 ozs.

Use List No. 566 fuses in these protectors.

### Protector and Switch Cut-Out



Combined protector and switch cut-out mounted on wood or porcelain base, as ordered.

List No. 74 Protector and switch cut-out Single pole, weight 1 pound.

List No. 75 Protector and switch cut-out Double pole, weight 2 pounds.

Use List No. 568 fuses.

Fuses are not included in the prices on protectors.

### Western Union Type Fuse



Copper Terminals, Enclosed Type

List No. 566  $2\frac{1}{4}'' \times 3\frac{3}{8}''$ , either  $\frac{1}{4}$  or  $\frac{1}{2}$  ampere

List No. 568  $2'' \times 2''$ , either  $\frac{1}{4}$  or  $\frac{1}{2}$  ampere

### Baby Knife Switches

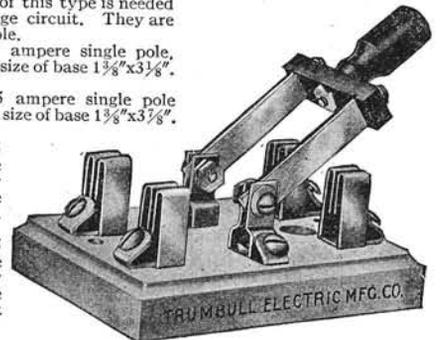
A simple switch of this type is needed in every low voltage circuit. They are well made and reliable.

List No. 538, 15 ampere single pole, single throw switch, size of base  $1\frac{3}{8}'' \times 3\frac{1}{8}''$ . Weight 1 pound.

List No. 540, 15 ampere single pole double throw switch size of base  $1\frac{3}{8}'' \times 3\frac{1}{8}''$ . Weight 1 pound.

List No. 542, 15 ampere, double pole, single throw switch, size of base  $2'' \times 2\frac{5}{8}''$ . Weight 1 pound.

List No. 544, 15 ampere, double pole, double throw switch, size of base  $2\frac{5}{8}'' \times 3\frac{3}{8}''$ . Weight 1 pound.



### S-C Friction Tape

A high grade rubber friction tape with cotton back. Every roll guaranteed satisfactory. One-half pound rolls put up in paper cartons.

List No. 1501 S-C Friction Tape,  $\frac{3}{4}$  in. black.



### Self-Fluxing Solder

List No. 1500 Self-Fluxing Solder on 10 lb. Spools.

Flux solder is the only solder that should be used in switchboards and telephones.



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**Highland Soldering Paste**

This paste is condensed to such a degree that one pound of it will do as much work as three gallons of ordinary soldering solution.

List No. 455 Highland Soldering Paste, 1 lb. can.

List No. 454 Highland Soldering Paste, 2 oz. can.

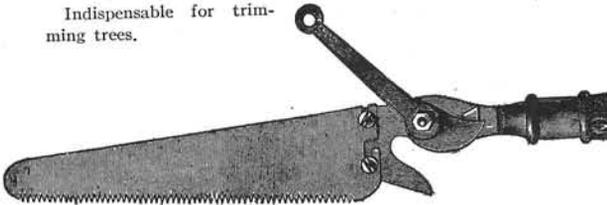
**List No. 1724 Soldering Copper**



List No. 1724 Soldering Copper, length 9 in. Shipping weight ¼ pound.

**List No. 426 Combined Tree Trimmer and Saw**

Indispensable for trimming trees.



**List No. 408 Splicing Clamp**



List No. 408, Splicing Clamp, four round holes for numbers 8, 10, 12 and 14 iron wire or numbers 4, 6, 8, 10 and 12 copper wire. Weight 2 pounds.

**List No. 267 Haven's Clamp**



List No. 267 Haven's Clamp holds No. 8 wire and smaller. Weight 2½ pounds.

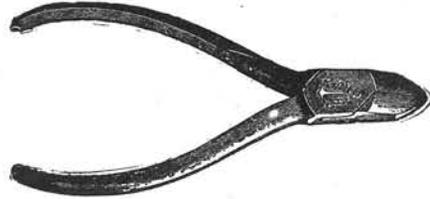
**Side Cutting Pliers**



Made from special steel, forged, machined and fitted by skilled workmen.

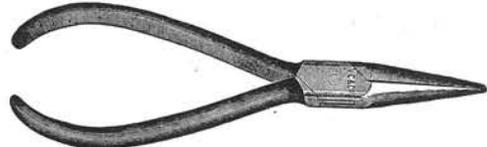
List No. 977	6 inch	weight 8 oz.
List No. 978	7 inch	weight 12 oz.
List No. 979	8 inch	weight 17 oz.

**Genuine Swedish Diagonal Pliers Polished**



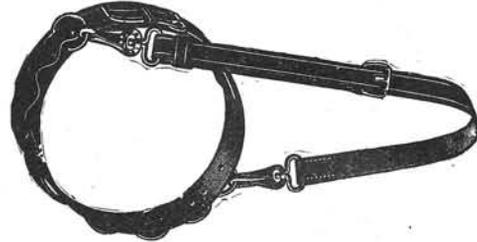
List No. 993 4½", weight 5 oz.  
List No. 994 5" weight 5½ oz.  
List No. 995 5½", weight 6 oz.

**Long Nosed Pliers**



List No. 1669	4 inch	weight 5 oz.
List No. 401	5 inch	weight 5½ oz.
List No. 1671	6 inch	weight 6 oz.

**List No. 304 Belt and Safety Strap**



This strap is 1¾" wide, 6 feet long and provided with a strong snap at each end. Strap may be shortened or lengthened by adjusting buckle. When ordering specify whether belt is to be for 38, 40 or 44 inch waist. Weight 3½ pounds.  
List No. 304 Belt and Safety Strap.

**List No. 215 Crow and Digging Bar**



List No. 216 Crow and Digging Bar, made of hexagonal steel, 7 feet long.  
Weight 18 pounds.

**List No. 226 Long Handle Shovel**



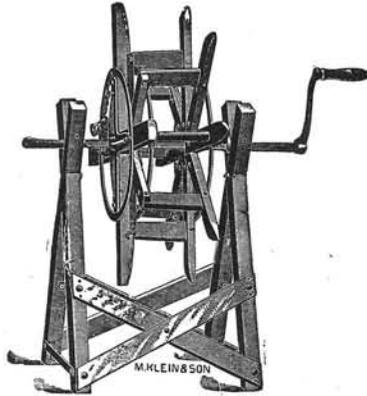
List No. 226 Long Handle Shovel, 7 feet, 22 inch straps, weight 8 pounds.

**Syracuse Bell Hanger's Drill**



Syracuse Bell Hanger's Drill, 12-32 inch by 18 inch. Weight 1½ pounds.  
Other sizes carried in stock. Specify size required when ordering.

**Improved Take-up Reel**



Constructed of oak throughout. Solidly built, reinforced with steel plates, arranged with quickly detachable cross guard for removing wire after it is coiled. The bearing portions of the axle are lathe turned.

List No. 260, for 18-inch coil, weight 62 pounds.

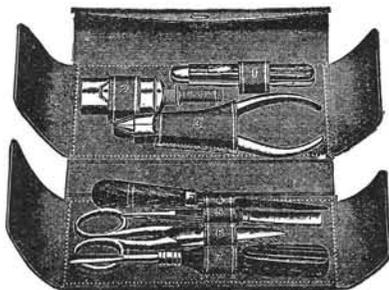
**Pay-Out Reel on Barrow**



Made of hard wood reinforced with steel plates. Barrow is supported by steel legs braced and bolted through wood. Guard pins are adjustable for 12, 18 or 24 inch coils.

List No. 262, weight 80 pounds.

**Tool Kits**

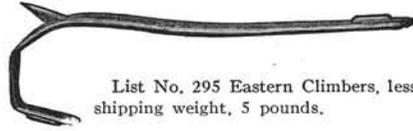


Good tools mean good work. The right tool for every purpose. Complete kit in strong leather carrying case, measuring 3x6 inches; electrician's knife, oil can, nickel plated 5 inch pliers, file, tweezers, screw driver and electrician's shears. Indispensable to the practical electrician.

List No. 424 Lineman's Tool Kit.

Order one today. Weight 2 pounds.

**List No. 295 Eastern Climbers**



List No. 295 Eastern Climbers, less straps, shipping weight, 5 pounds.

Warranted high grade, reliable goods. Specify length when ordering.

List No. 300 straps.

**Advance Pocket Volt Ammeter**

A strictly high grade instrument, is jeweled, insuring greater accuracy and wearing qualities. Indicates in either direction of current; you can thus obtain reading instantly regardless of the polarity of the battery terminals. Scale 0 to 8 volts and 0 to 30 amperes.

List No. 1743 Jeweled with fine Morocco leather case, weight 6 oz.

For testing amperage only use the Eclipse battery Ammeter.

List No. 1742 with leather case.



**Blow Torch**



This torch is equipped with the latest improved burner with automatic pump and tank. It is made to last and makes fast work possible by giving a very hot flame.

Weight 4 pounds.

List No. 1713 Blow Torch.

**Gray Automatic Pay Stations**



These pay stations are designed to mount on the side of the telephone and are infallible. A number of pay stations will greatly increase your revenue.

List No. 1246 furnished in red white and blue enamel; complete with mounting plate takes 5, 10 and 25c coins.

List No. 1247 furnished in black enamel, complete with mounting

plate, takes 5, 10 and 25c coins.

List No. 1248 complete with attachments for use with desk stand takes 5, 10 and 25c coins.

## TO THE TRADE

**When ordering** goods, give address in full and shipping point, taking care to specify our Code Number as well as the name of each article ordered. Unless you specify by Code Number what is wanted, your order may be subjected to delay. Make orders separate from anything else.

**Shipments**—Always specify whether you desire goods shipped by freight, express, parcel post, or insured parcel post, and if by freight by what delivering railroad.

**Transportation Charges**—All goods here listed are sold F.O.B. Rochester, New York, or F.O.B. Chicago, Illinois, unless otherwise specified by us, and the transportation charges will therefore be collected from the purchaser by the carriers. If there is no freight agent at your shipping point you must send money to prepay the freight charges. It is only necessary to prepay when there is no agent at your station.

**Parcels Post**—In ordering shipments by parcel post, always allow sufficient money to cover postage. Weight of packages can be easily figured from the weights given in the catalog descriptions. Knowing the weight and the parcel post zone in which your post office is located you can easily figure the amount of postage required. An insurance fee of two cents for every \$10.00 of value must be included for each parcel post package valued at \$2.00 or over. The weight limit on parcels for delivery within the first and second zones, or within a radius of 150 miles, is fifty pounds; the weight limit to points over 150 miles, or outside of the second zone, is twenty pounds.

**Freight and Express**—Tables showing freight and express rates from our factory and from Chicago and Kansas City branches to principal points in the United States are given on Page 15.

**Prices**—We issue price lists giving lowest quotations on all standard goods and endeavor to have in our customers' hands an up-to-date list, but all prices are made subject to change without notice. Prices are always F.O.B shipping point as quoted.

**All Agreements** are made contingent upon strikes, fire, accidents, or causes beyond our control.

**Terms**—Accounts are due and payable thirty days from date of invoice, and will be subject to sight-draft without notice

after that date. For payments within ten days from date of invoice we allow discounts of one-half of one per cent. on cable and copper wire, one per cent. on dry batteries and rubber covered wire, and two per cent. on all other goods.

**New Customers**, unless satisfactorily rated by the commercial agencies, should send references with their first order, and a brief statement of their financial condition. This will enable this Company to act promptly. To avoid the slight delay necessarily occasioned by the usual inquiries of references, the Company is always glad to ship by express C. O. D. or by freight subject to sight-draft against bill of lading, in the meantime writing to any references in anticipation of future orders.

**Cash Discount** is allowed on all C.O.D. or D. B. L. shipments and likewise on cash paid in advance.

**Remittances** may be made by draft on New York, Philadelphia, Chicago, or St. Louis, by post office or express money order, or in currency if sent by registered mail. Unless sent with orders, all remittances should be addressed to our General Office at Rochester, New York.

**Liability**—As our goods are sold F.O.B. point of shipment and become the property of our customers as soon as turned over to the transportation companies, we are not liable for loss of or damage to goods in transit. All claims for such loss or damage should be made against the transportation companies, but we will gladly act as agent for our customers in making such claims.

**Guarantee**—We guarantee the workmanship and material of the apparatus herein listed and agree to replace free of charge any parts proving defective within one year from date of sale upon return of same to factory, charges prepaid.

**Returning Goods**—Under no circumstances return goods to us without first getting permission; otherwise we shall have to refuse them. We stand ready to correct at any time errors on our part and expect our customers to accept liability for their mistakes, making a handling charge on goods returned through no fault of ours. Name and address of shipper should be plainly marked on all returned packages. Transportation charges on goods returned must be prepaid.

## Freight and Express Rates

The following tables show the freight and express rates per 100 pounds on goods shipped from Rochester, Chicago, and Kansas City, to representative points throughout the United States. By means of these tables you can closely approximate the amount of money to send in addition to price of goods to cover transportation charges. Your local freight or express agents will give you more exact information in case you require it. When you do not specify method of shipment in your order we will ship the cheapest way.

**How To Estimate Transportation Charges:**—Ascertain the weight of the shipment by adding the shipping weights of each item in your order and find the rate from our nearest office to the nearest city in the following tables. This rate will be close enough for practical purposes. In case you send too much money we will refund the excess to you promptly.

From ROCHESTER To—	EXPRESS	1st CLASS FREIGHT	2nd CLASS FREIGHT	3rd CLASS FREIGHT	4th CLASS FREIGHT	From ROCHESTER To—	EXPRESS	1st CLASS FREIGHT	2nd CLASS FREIGHT	3rd CLASS FREIGHT	4th CLASS FREIGHT
Birmingham, Ala.	\$3.20	\$1.33	\$1.14	\$ .99	\$ .86	Boston, Mass.	\$1.50	\$ .42	\$ .37	\$ .29	\$ .22
Little Rock, Ark.	3.60	1.65	1.41	1.08	.80	Minneapolis, Minn.	3.10	.98	.82	.70	.63
San Francisco, Cal.	10.00	3.70	3.20	2.65	2.25	Kansas City, Mo.	2.90	1.20	.97	.75	.54
Denver, Colo.	5.30	2.27	1.83	1.44	1.11	Albany, N. Y.	1.25	.33	.28	.24	.17
Washington, D. C.	1.60	.47	.40	.32	.25	Raleigh, N. C.	2.45	.98	.85	.70	.56
Tampa, Fla.	4.55	1.50	1.28	1.11	1.03	Columbus, Ohio	1.70	.43	.38	.29	.20
Atlanta, Ga.	3.20	1.28	1.10	.95	.82	Philadelphia, Pa.	1.50	.37	.31	.26	.19
Cairo, Ill.	2.45	.66	.58	.44	.31	Knoxville, Tenn.	2.75	1.21	1.04	.90	.78
Indianapolis, Ind.	1.90	.51	.45	.34	.24	Fort Worth, Texas	5.00	2.22	1.81	1.47	1.26
Des Moines, Iowa	2.70	1.00	.84	.64	.47	Charleston, W. Va.	2.10	.48	.42	.33	.22
Louisville, Ky.	2.00	.55	.48	.37	.26	Milwaukee, Wisc.	2.10	.56	.48	.37	.26

From CHICAGO To—	EXPRESS	1st CLASS FREIGHT	2nd CLASS FREIGHT	3rd CLASS FREIGHT	4th CLASS FREIGHT	From CHICAGO To—	EXPRESS	1st CLASS FREIGHT	2nd CLASS FREIGHT	3rd CLASS FREIGHT	4th CLASS FREIGHT
Bismark, N. D.	\$3.65	\$1.60	\$1.35	\$1.07	\$ .76	Minneapolis, Minn.	\$2.00	\$ .60	\$ .50	\$ .40	\$ .25
Cairo, Ill.	1.50	.47	.39	.30	.24	Grand Rapids, Mich.	1.00	.35	.30	.23	.16
Indianapolis, Ind.	1.00	.33	.29	.23	.15	Helena, Mont.	6.55	2.65	2.3	.18	.15
Des Moines, Iowa	1.80	.60	.48	.36	.27	Sioux Falls, S. D.	2.45	.83	.68	.47	.34
Duluth, Minn.	2.40	.65	.55	.44	.28	Milwaukee, Wisc.	.90	.25	.20	.15	.12
Knoxville, Tenn.	2.40	1.11	.95	.74	.82	Louisville, Ky.	1.25	.43	.37	.27	.19
Fort Worth, Texas	3.85	1.67	1.41	1.16	1.06	Mobile, Ala.	2.95	1.10	.90	.75	.58

From KANSAS CITY To—	EXPRESS	1st CLASS FREIGHT	2nd CLASS FREIGHT	3rd CLASS FREIGHT	4th CLASS FREIGHT	From KANSAS CITY To—	EXPRESS	1st CLASS FREIGHT	2nd CLASS FREIGHT	3rd CLASS FREIGHT	4th CLASS FREIGHT
Little Rock, Ark.	\$2.60	\$1.10	\$ .95	\$ .74	\$ .56	Lincoln, Nebr.	\$1.40	\$ .60	\$ .45	\$ .35	\$ .27
Denver, Colo.	3.20	1.15	.92	.74	.60	Santa Fe, N. M.	3.80	1.70	1.45	1.19	1.02
Topeka, Kans.	.90	.29	.24	.19	.15	Oklahoma City, Okla.	2.25	.95	.82	.74	.62
Wichita, Kans.	1.60	.66	.58	.50	.40	Fort Worth, Texas	3.03	1.27	1.11	.96	.89
Joplin, Mo.	1.05	.49	.40	.33	.23	San Antonio, Texas	3.70	1.47	1.25	1.04	.96

### Freight Classifications

Telephones, Switchboards and parts	1st Class	Crossarm pins and brackets in boxes	4th Class
Dry Batteries 15% below 2nd Class		Galvanized Wire	4th Class
Telephone Cable	3rd Class	Insulated Wire	3rd Class
Crossarms, wooden	4th Class	Insulators, Glass	3rd Class
Pole Line Hardware including bolts, cable seats, etc.	4th Class	Insulators, Porcelain	3rd Class
Crossarm pins and brackets in bags	3rd Class	Tools	3rd Class

### Express Charges Based upon 100 lb. Rates

Rate per 100 lbs. Package weighing	1 pound	\$ .75	\$ 1.00	\$1.25	\$1.50	\$1.75	\$2.00	\$2.50	\$3.00	\$3.50	\$4.00
" " 1 pound		.26	.26	.26	.26	.26	.27	.27	.28	.28	.29
" " 2 "		.26	.26	.27	.27	.28	.28	.29	.31	.32	.33
" " 5 "		.27	.29	.30	.31	.32	.34	.36	.39	.41	.44
" " 10 "		.30	.32	.35	.37	.40	.42	.47	.53	.58	.63
" " 15 "		.32	.36	.40	.44	.47	.51	.59	.67	.74	.83
" " 20 "		.35	.40	.45	.50	.55	.60	.70	.81	.91	1.02
" " 25 "		.37	.44	.50	.56	.62	.69	.81	.95	1.07	1.21
" " 30 "		.40	.47	.55	.62	.70	.77	.92	1.09	1.24	1.40
" " 35 "		.42	.51	.60	.69	.77	.86	1.04	1.23	1.40	1.60
" " 40 "		.45	.55	.65	.75	.85	.95	1.15	1.37	1.57	1.79
" " 45 "		.47	.59	.70	.81	.92	1.04	1.26	1.51	1.73	1.98

Rural Line Bulletin

# Parcel Post Guide

For parcel post shipments you are located in

.....zone from factory at Rochester, New York,

.....zone from branch office at Chicago, Illinois,

.....zone from branch office at Kansas City, Missouri,

## U. S. PARCEL POST Postage Rate Table for Parcel Post Shipment

Weight	Local miles from shipping point	ZONES						
		1 and 2 1 to 150	3 150 to 300	4 300 to 600	5 600 to 1000	6 1000 to 1400	7 1400 to 1800	8 all over 1800
1 Lb.	\$0.05	\$0.05	\$0.06	\$0.07	\$0.08	\$0.09	\$0.11	\$0.12
2 "	.06	.06	.08	.11	.14	.17	.21	.24
3 "	.06	.07	.10	.15	.20	.25	.31	.36
4 "	.07	.08	.12	.19	.26	.33	.41	.48
5 "	.07	.09	.14	.23	.32	.41	.51	.60
6 "	.08	.10	.16	.27	.38	.49	.61	.72
7 "	.08	.11	.18	.31	.44	.57	.71	.84
8 "	.09	.12	.20	.35	.50	.65	.81	.96
9 "	.09	.13	.22	.39	.56	.73	.91	1.08
10 "	.10	.14	.24	.43	.62	.81	1.01	1.20
11 "	.10	.15	.26	.47	.68	.89	1.11	1.32
12 "	.11	.16	.28	.51	.74	.97	1.21	1.44
13 "	.11	.17	.30	.55	.80	1.05	1.31	1.56
14 "	.12	.18	.32	.59	.86	1.13	1.41	1.68
15 "	.12	.19	.34	.63	.92	1.21	1.51	1.80
16 "	.13	.20	.36	.67	.98	1.29	1.61	1.92
17 "	.13	.21	.38	.71	1.04	1.37	1.71	2.04
18 "	.14	.22	.40	.75	1.10	1.45	1.81	2.16
19 "	.14	.23	.42	.79	1.16	1.53	1.91	2.28
20 "	.15	.24	.44	.83	1.22	1.61	2.01	2.40
21 "	.15	.25						
22 "	.16	.26						
23 "	.16	.27						
24 "	.17	.28						
25 "	.17	.29						
26 "	.18	.30						
27 "	.18	.31						
28 "	.19	.32						
29 "	.19	.33						
30 "	.20	.34						
31 "	.20	.35						
32 "	.21	.36						
33 "	.21	.37						
34 "	.22	.38						
35 "	.22	.39						
36 "	.23	.40						
37 "	.23	.41						
38 "	.24	.42						
39 "	.24	.43						
40 "	.25	.44						
41 "	.25	.45						
42 "	.26	.46						
43 "	.26	.47						
44 "	.27	.48						
45 "	.27	.49						
46 "	.28	.50						
47 "	.28	.51						
48 "	.29	.52						
49 "	.29	.53						
50 "	.30	.54						

Parcel post rates are computed according to the weight of the parcel to be shipped and the distance between the shipping point and delivery point. For this purpose the United States is divided into eight (8) zones, each carrying a different postage rate.

The above table shows the amount of postage by parcel post according to the weight of the package and the distance by zones. Parcels weighing four ounces or less are available at the rate of 1 cent for each ounce or fraction thereof, regardless of distance. Parcels weighing more than four ounces up to sixteen ounces must be mailed as a full pound. Parcels weighing a fraction over a pound take the next pound rate.

### INSURANCE ON PARCELS.

Fragile articles will be carefully packed, but as the parcel post does not guarantee their safe delivery we cannot be held responsible for breakage or lost shipments. For your own protection order parcel post goods insured.

Fee for this insurance for each package is as follows:

- \$0.03 when valued less than \$10.00
- .05 when valued \$10.00 and less than \$25.00
- .08 when valued 25.00 and less than 35.00
- .10 when valued 35.00 and less than 50.00

The weight limit on parcels for delivery within the first and second zone or within a radius of 150 miles of shipping point is 50 pounds. The weight limit to points over 150 miles or outside of the second zone is 20 pounds.

## Stromberg-Carlson Telephone Manufacturing Company

Rochester, N. Y. Chicago, Ill. Toronto, Ont. Kansas City, Mo.

Southern Distributors:—Sumter Telephone Supply Co., Atlanta, Ga.

Pacific Coast Distributors:—Telephone Electric Equipment Co., San Francisco and Los Angeles, Cal., Portland, Ore., Seattle, Wash.

# STROMBERG-CARLSON TELEPHONE MFG. CO.

ROCHESTER, N.Y. CHICAGO, ILL.  
KANSAS CITY, MO. TORONTO, ONT.

Price List No. 1009

## RURAL LINE BULLETIN

April 9, 1917

### PAGE 1

#### No. 896 COMPACT WALL TELEPHONES

CODE NO.	DESCRIPTION	Shipping Points		
		Rochester Chicago	Kansas City Atlanta	San Fran. Seattle
896-A	3 Bar 100 Ohm Series	\$11.25	\$11.60	\$11.95
896-C	3 Bar 500 Ohm Bridging	11.50	11.85	12.20
896-R	3 Bar 1000 Ohm Bridging	11.50	11.85	12.20
896-S	3 Bar 1600 Ohm Bridging	11.60	11.95	12.30
896-D	4 Bar 1000 Ohm Bridging	11.85	12.20	12.55
896-E	4 Bar 1600 Ohm Bridging	11.85	12.20	12.55
896-F	4 Bar 2000 Ohm Bridging	11.95	12.30	12.65
896-G	4 Bar 2500 Ohm Bridging	12.05	12.40	12.75
896-H	5 Bar 1000 Ohm Bridging	12.10	12.45	12.80
896-I	5 Bar 1600 Ohm Bridging	12.10	12.45	12.80
896-J	5 Bar 2000 Ohm Bridging	12.20	12.55	12.90
896-L	5 Bar 2500 Ohm Bridging	12.30	12.65	13.00
Harmonic Type				
896-M	3 Bar 2500 Ohm (16 Cyc.)	12.25	12.60	12.95
896-N	3 Bar 500 Ohm (33 Cyc.)	12.25	12.60	12.95
896-O	3 Bar 500 Ohm (50 Cyc.)	12.25	12.60	12.95
896-Q	3 Bar 500 Ohm (66 Cyc.)	12.25	12.60	12.95

### PAGE 2

#### No. 1000 DESK TELEPHONE OUTFITS

CODE NO.	DESCRIPTION	Shipping Points		
		Rochester Chicago	Kansas City Atlanta	San Fran. Seattle
1000-C	3 Bar 500 Ohm Bridging	\$12.50	\$12.85	\$13.20
1000-R	3 Bar 1000 Ohm Bridging	12.50	12.85	13.20
1000-S	3 Bar 1600 Ohm Bridging	12.60	12.95	13.30
1000-D	4 Bar 1000 Ohm Bridging	12.85	13.20	13.55
1000-E	4 Bar 1600 Ohm Bridging	12.85	13.20	13.55
1000-F	4 Bar 2000 Ohm Bridging	12.95	13.30	13.65
1000-G	4 Bar 2500 Ohm Bridging	13.05	13.40	13.75
1000-H	5 Bar 1000 Ohm Bridging	13.10	13.45	13.80
1000-I	5 Bar 1600 Ohm Bridging	13.10	13.45	13.80
1000-J	5 Bar 2000 Ohm Bridging	13.20	13.55	13.90
1000-L	5 Bar 2500 Ohm Bridging	13.30	13.65	14.00
Harmonic Type				
1000-M	3 Bar 2500 Ohm (16 Cyc.)	13.25	13.60	13.95
1000-N	3 Bar 500 Ohm (33 Cyc.)	13.25	13.60	13.95
1000-O	3 Bar 500 Ohm (50 Cyc.)	13.25	13.60	13.95
1000-Q	3 Bar 500 Ohm (66 Cyc.)	13.25	13.60	13.95

#### No. 1138 COMBINATION TELEPHONE OUTFITS

CODE NO.	DESCRIPTION	Shipping Points		
		Rochester Chicago	Kansas City Atlanta	San Fran. Seattle
1138-C	3 Bar 500 Ohm Bridging	\$13.25	\$13.60	\$13.95
1138-R	3 Bar 1000 Ohm Bridging	13.25	13.60	13.95
1138-S	3 Bar 1600 Ohm Bridging	13.35	13.70	14.05
1138-D	4 Bar 1000 Ohm Bridging	13.60	13.95	14.30
1138-E	4 Bar 1600 Ohm Bridging	13.60	13.95	14.30
1138-F	4 Bar 2000 Ohm Bridging	13.70	14.05	14.40
1138-G	4 Bar 2500 Ohm Bridging	13.80	14.15	14.50
1138-H	5 Bar 1000 Ohm Bridging	13.85	14.20	14.55
1138-I	5 Bar 1600 Ohm Bridging	13.85	14.20	14.55
1138-J	5 Bar 2000 Ohm Bridging	13.95	14.30	14.65
1138-L	5 Bar 2500 Ohm Bridging	14.05	14.40	14.75
Harmonic Type				
1138-M	3 Bar 2500 Ohm (16 Cyc.)	14.00	14.35	14.70
1138-N	3 Bar 500 Ohm (33 Cyc.)	14.00	14.35	14.70
1138-O	3 Bar 500 Ohm (50 Cyc.)	14.00	14.35	14.70
1138-Q	3 Bar 500 Ohm (66 Cyc.)	14.00	14.35	14.70

### ADDITIONS

Add for				
"K" Sure Ring Condenser	\$ .35	\$ .35	\$ .35	
"P" Non-Interfering Push Button	.25	.25	.25	
4 or 5-bar Puls. Generator for Central Checking	.25	.25	.25	
"P" "Secret Call" Push Button and No. 40 5-bar Puls. and A. C. Generator for (a) Metallic Lines or (b) Grounded Lines	.50	.50	.50	

All the above prices are based upon telephones furnished less batteries. Batteries if ordered will be billed separately and at the nearest even figure to the barrel lot price.

### PAGE 3

No. A-5629	Switchboard	Price upon Application
No. A-11664	Switchboard	Price upon Application
No. A-5442	Switchboard	Price upon Application
No. A-11741	Switchboard	\$75.00
No. A-11740	Switchboard	35.00

### PAGE 4

No. 921	Switching Telephone	each	\$19.25
No. 922	Switching Telephone	"	19.25
No. 923	Switching Telephone	"	19.35
No. 2	Two-line Switching Device	"	6.75
No. 8	Two-line Switching Device	"	7.00
No. 300-A	Extension Bell	"	2.50
No. 300-D	Extension Bell	"	2.75
No. 300-E	Extension Bell	"	2.75
No. 300-F	Extension Bell	"	2.85
No. 300-G	Extension Bell	"	2.95
No. 962	Loud Ringing Bell (1000 Ohms)	"	7.10
No. 962	Loud Ringing Bell (1600) Ohms	"	7.35
No. 965	Telephone	"	8.65
No. 844-E	Test Set	"	15.00
Additional for	Shoulder Strap	"	2.50
Stewart Test Set		"	25.00

### PAGE 5

Stewart Cable Tester Type "L"	each	\$34.00
No. 7-B	Transmitter	" 1.40
No. 8-B	Transmitter	" 1.50
No. 27-A	Receiver with R-2-E 36" Cord	" 1.50
No. 34-A	Hookswitch	" .75
No. 34-B	Hookswitch	" .75
No. 46-A	Ringer 1000 Ohms	" 1.50
No. 46-C	Ringer 1600 Ohms	" 1.60
No. 46-E	Ringer 2000 Ohms	" 1.75
No. 46-F	Ringer 2500 Ohms	" 2.00
No. 46-H	Ringer 100 Ohms	" 1.10
No. 26-T	"Sure-Ring" Condenser	" .35
No. 20	3 Bar Series Generator	" 3.50
No. 22	3 Bar Bridging Generator	" 3.50
No. 23	4 Bar Bridging Generator	" 4.00
No. 24	5 Bar Bridging Generator	" 4.50
No. 40	5 Bar "Secret Call" Generator	" 4.75
No. 57	5 Bar Switchboard Generator	" 5.00

### PAGE 6

No. 20-A	Induction Coil	each	\$ .60
No. 39-A	Induction Coil	"	.60
Pc. No. 7784	Receiver Shell	"	.35
Pc. No. 11171	Ear Cap.	"	.125
Pc. No. 11532	Ear Cap.	"	.125
Pc. No. 5345	Mouthpiece	"	.07
Pc. No. 9070	Mouthpiece (Glass)	"	.25
No. R2E	36 in. Receiver Cord	"	.175
No. D3A	6 ft. Desk Telephone Cord	"	.45
No. T1F	11 in. Transmitter Cord	"	.05

No. C4A 4½ ft. Comb. Phone Cord.....	"	.60
No. O1A 5 ft. Opr's Trans. Cord.....	"	.15
No. O4C 5 ft. Opr's Set Cord.....	"	.80
No. O2F 6 ft. Opr's Receiver Cord.....	"	.45
No. S231 6 ft. Switchboard Cord.....	"	.40
No. S22C 6 ft. Switchboard Cord.....	"	.40
No. 1-L Switchboard Operator's Set.....	"	7.50
No. 23 Operator's Plug, 4 Point.....	"	.90
No. 93 Operator's Jack, 4 Point.....	"	.90
No. 20-A Operator's Receiver with Cord.....	"	2.50
No. 40 Plug.....	"	1.00
No. 58 Jack.....	"	.90
No. 173 Ringing and Listening Key.....	"	2.50
No. 42 Plug.....	"	.70

**PAGE 7**

5 No. 11-E Drops (350 Ohms) mounted on steel mounting plate.....	\$13.00
5 No. 11-A Drops (500 Ohms) mounted on steel mounting plate.....	13.00
List No. 1160 Operator's Chairs.....	each 4.25
List No. 1242 Operator's Chairs.....	5.00

**COLUMBIA DRY CELLS**

		F. O. B.	F. O. B.
		Rochester, N. Y.	Chicago
Less than 12.....	each	\$0.35	\$0.35
12 or less than 50.....	each	.306	.3075
50 or less than 125.....	each	.261	.2625
Bbl. lots (125) or multiples.....	each	.246	.2475
List No. 1126 Gravity Battery.....	each	\$ .78	
List No. 1127 Zinc.....	"	.55	
List No. 1128 Copper.....	"	.09	
List No. 1129 Glass Jar.....	"	.25	
List No. 1268 Blue Vitriol.....	lb.	.18	
Ringing Generators.....	Prices on Application		
Rubber and Leaded Cables.....	Prices on Application		
Rubber and Braided Cables.....	Prices on Application		

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List No. 1929 Cook Pole Cable House.....	each	\$6.50
List No. 1930 Cook Pole Cable House.....	"	7.50
List No. 1931 Cook Pole Cable House.....	"	9.50
List No. 1850 H-19 Protectors.....	pr.	.315
List No. 1901 Pole Seats.....	"	1.14
List No. 1902 Pole Seats.....	"	1.44
List No. 1903 Pole Seats.....	"	1.14
List No. 1904 Pole Seats.....	"	1.44
No. 69 Arresters complete.....	pr.	.45
Pc. No. 12606 Arrester strip only.....	pr.	.30
Pc. No. 12607 Jumper strip only.....	pr.	.15
Iron Frames 50, 100 or 150 line capacity.....	pr.	.10
List No. 258 Ground Rod.....	each	.30
List No. 258 with 12" Copper Wire.....	"	.37
List No. 1907 Aerial Rings.....	M	10.80
List No. 1917 Pliers (1½" & 2").....	pr.	1.50
List No. 1636-A Paragon Ground Cone.....	each	2.85
List No. 1637-A Paragon Ground Cone.....	"	3.75

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List No. 1213 Bridle Rings.....	C	\$6.00
List No. 1214 Bridle Rings.....	C	5.50
List No. 1215 Bridle Rings.....	C	4.40
List No. 1216 Bridle Rings.....	C	10.00
List No. 929 No. 6 B.B. Galv. Iron Wire.....	lb.	.071
List No. 933 No. 12 B.B. Galv. Iron Wire.....	lb.	.074
List No. 934 No. 14 B.B. Galv. Iron Wire.....	lb.	.078
Add ¼ cent per lb. for shipment from Chicago stock.		
List No. 1600 Iron Drop Wire.....	M ft.	\$12.00
List No. 1603 Iron Drop Wire.....	M ft.	6.00
List No. 27 Tree Wire.....	lb.	.13¼
List No. 28 Tree Wire.....	lb.	.15¼
List No. 1598 Tree Wire.....	lb.	.14¼
List No. 1599 Tree Wire.....	lb.	.15¼
List No. 1613 Rubber Covered Wire.....	M ft.	12.38
List No. 671 Rubber Covered Wire.....	M ft.	15.75
List No. 920 ½ in. Galv. Strand.....	List C ft.	5.50
List No. 921 7-16 in. Galv. Strand.....	List	4.50
List No. 922 ¾ in. Galv. Strand.....	List	3.50
List No. 923 5-16 in. Galv. Strand.....	List	2.50
List No. 924 ¼ in. Galv. Strand.....	List	1.75

		Single Galvanized
Less than 1000 ft.....	25%	
1000 to 2500 ft.....	30%	
2500 to 5000 ft.....	35%	
5000 ft. and over.....	Special	
		Double Galvanized
Less than 1000 ft.....	15%	
1000 to 2500 ft.....	20%	
2500 to 5000 ft.....	25%	
5000 ft. and over.....	Special	

Add \$ .25 net per hundred pounds when shipped from Kansas City stock.

List No. 903 Anchor Guy Rods.....	C	47.25
List No. 1956 Galv. Messenger Support.....	each	\$0.25
List No. 204 Galv. Guy Clamps.....	"	.19
List No. 205 Galv. Guy Clamps.....	"	.15

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List No. 1057 Wire Connectors.....	Per 100	\$2.03
List No. 1056 Wire Connectors.....	"	2.03
List No. 1059 Wire Connectors.....	"	2.30
List No. 1058 Wire Connectors.....	"	2.43
Scrulix Anchor 5 in.....	each	\$1.25
Scrulix Anchor 6 in.....	"	1.70
Scrulix Anchor 7 in.....	"	2.05
No. 567 Wrench.....	"	4.50
75% Heart Pine Crossarms 4 Pin 2¾ x 3¾.....		.21
75% Heart Pine Crossarms 6 Pin 2¾ x 3¾.....		.31
75% Heart Pine Crossarms 8 Pin 2¾ x 3¾.....		.41
75% Heart Pine Crossarms 10 Pin 2¾ x 3¾.....		.51

		F. O. B. Chicago, Ill.
Carriage Bolts 3½ in. x ¾ in. Galv.....	C	\$2.03
Machine Bolts, 10 in. x ¾ in. Galv.....	"	9.91
Lag Screws 4 in. x ½ in. Galv.....	"	4.16
List No. 140 Crossarm Brace 20 in. Galv.....	"	7.33
List No. 144 Crossarm Brace 24 in. Galv.....	"	11.32
List No. 851 Crossarm Brace 28 in. Galv.....	"	15.35
List No. 859 Square Washers.....	M	20.00
List No. 155 Round Washers.....	"	5.50
List No. 1085 Staples.....	Pkg.	.15
List No. 1086 Staples.....	"	.15
List No. 1087 Staples.....	"	.17
List No. 1088 Staples.....	"	.17
List No. 15 Pony Glass Insulator.....	M	\$36.75
List No. 16 Pony Glass Insulator.....	M	36.75
List No. 20 Porcelain Knob.....	M	11.05
List No. 1222 Porcelain Tube.....	C	3.60

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List No. 7 Oak Pins.....	C	.80
List No. 8 Locust Pins.....	C	1.30
List No. 13 Wood Brackets.....	C	1.65
List No. 1563 Wood Brackets.....	C	1.50
List No. 1497 Solder.....	lb.	\$ .38
No. 67 Mason Arrester.....	each	.90
No. 66 Mason Arrester.....	"	.65
List No. 1501 Friction Tape.....	lb.	.40
List No. 1500 Flux Solder.....	lb.	.50
List No. 560 Protector.....	each	.15
List No. 564 Protector.....	"	.25
List No. 74 Protector.....	"	.40
List No. 75 Protector.....	"	.75
List No. 566 Western Union Fuse.....	C	1.25
List No. 568 Western Union Fuse.....	C	1.25
List No. 538 Knife Switch.....	each	.12
List No. 540 Knife Switch.....	"	.27
List No. 542 Knife Switch.....	"	.30
List No. 544 Knife Switch.....	"	.43

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List No. 455 Highland Soldering Paste.....	each	\$1.00
List No. 454 Highland Soldering Paste.....	"	.25
List No. 1724 Soldering Copper.....	"	.40
List No. 426 Tree Trimmer.....	"	2.80
List No. 408 Splicing Clamp.....	"	1.60
List No. 267 Havens Clamp.....	"	1.50
List No. 977 Side Cutting Pliers.....	"	1.50
List No. 978 Side Cutting Pliers.....	"	1.75
List No. 979 Side Cutting Pliers.....	"	2.00
List No. 993 Diagonal Cutting Pliers.....	"	.90
List No. 994 Diagonal Cutting Pliers.....	"	1.00
List No. 995 Diagonal Cutting Pliers.....	"	1.10
List No. 1669 Long Nose Pliers.....	"	.35
List No. 401 Long Nose Pliers.....	"	.40
List No. 1671 Long Nose Pliers.....	"	.55
List No. 304 Belt.....	"	3.10
List No. 216 Crow and Digging Bar.....	"	2.25
List No. 226 Long Handle Shovel.....	"	1.45
Syracuse Drill 12-32 in. by 18 in.....	"	.47

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List No. 260 Take-up Reel.....	each	\$12.00
List No. 262 Pay-out Reel.....	"	8.00
List No. 424 Tool Kit.....	"	4.00
List No. 295 Eastern Climbers.....	"	2.00
List No. 300 Straps.....	set	1.40
List No. 1743 Volt-Ammeter.....	each	6.30
List No. 1742 Ammeter.....	"	2.00
List No. 1713 Blow Torch.....	"	7.60
List No. 1246 Gray Pay Station.....	"	10.20
List No. 1247 Gray Pay Station.....	"	9.60
List No. 1248 Gray Pay Station.....	"	13.20