

# GENERAL ELECTRIC

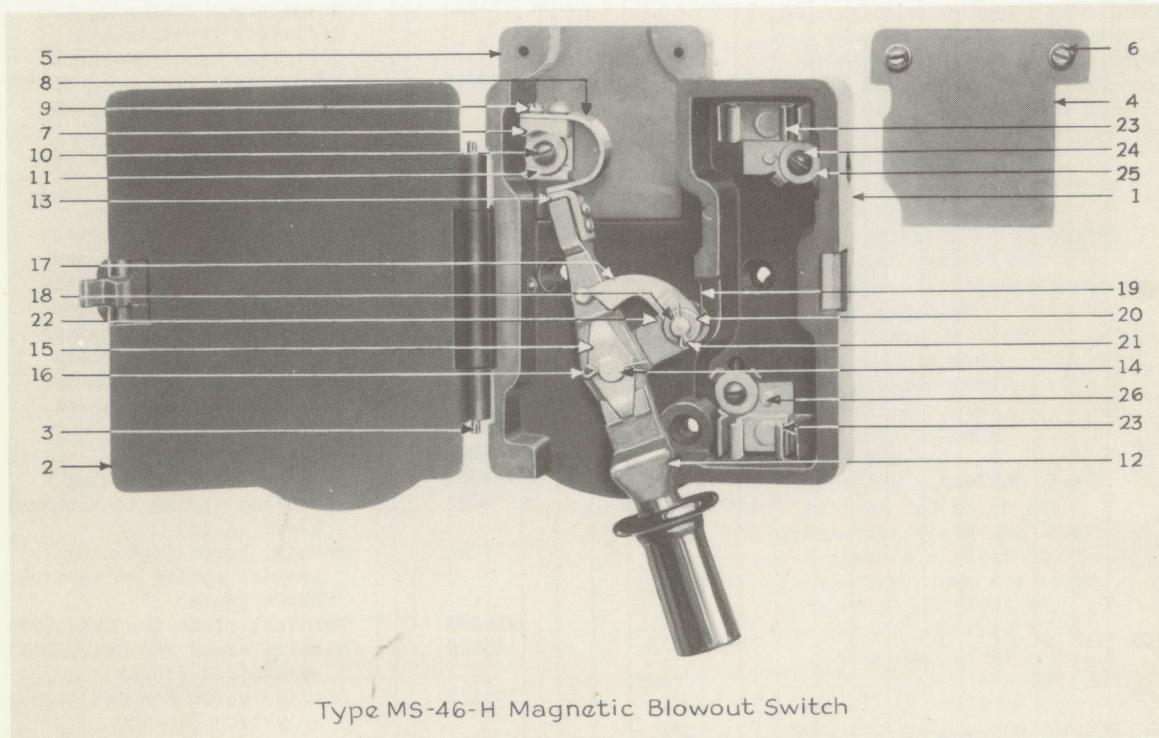
## RENEWAL-PARTS BULLETIN

December, 1936

\*GEF-1448B

### Type MS-46-A, -B, -C, -D, -F, -G, -H, -J, -K, -L, -N, -P, -Q, -R, -S, and -T Switches

When ordering renewal parts, give quantity of each item required, catalog number, and description.



| Ref. No. | Number Required for Type MS-46- |   |   |   |   |   |   |   |   |   |   |   |   |   |   | Cat.No. | Description |                            |
|----------|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|-------------|----------------------------|
|          | A                               | B | C | D | F | G | H | J | K | L | N | P | Q | R | S |         |             | T                          |
| 1        | 1                               | 1 | 1 | 1 |   |   |   |   |   |   |   |   |   |   |   |         | 4751937     | Switch box                 |
| 1        |                                 |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |         | 170587      | Switch box                 |
| 1        |                                 |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |         | 170566      | Switch box                 |
| 1        |                                 |   |   |   |   |   | 1 |   | 1 |   |   | 1 |   |   |   | 1       | 4751938     | Switch box                 |
| 1        |                                 |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |         | 194948      | Switch box                 |
| 1        |                                 |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |         | 194954      | Switch box                 |
| 1        |                                 |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |         | 4751939     | Switch box                 |
| 1        |                                 |   |   |   |   |   |   |   |   |   |   |   | 1 | 1 |   |         | 285603      | Switch box                 |
| 1        |                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       | 4754435     | Switch box                 |
| 2        | 1                               | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |         | 132328      | Front cover for switch box |
| 2        |                                 |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |         | 4751941     | Front cover for switch box |
| 3        | 1                               | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |         | 2710736     | Hinge pin for front cover  |
|          | A                               | B | C | D | F | G | H | J | K | L | N | P | Q | R | S | T       |             |                            |

NOTE:-Data subject to change without notice.

\*Supersedes GEF-1448A and GEG-1152.

**GENERAL ELECTRIC**

GEF-1448B

PARTS OF TYPE MS-46 SWITCHES

| Ref. No.      | Number Required for Type MS-46- |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         | Cat.No.   | Description  |  |
|---------------|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|---|--|--|
|               | A                               | B | C | D | F | G | H | J | K | L | N | P | Q | R | S | T       |   |  |  |
| 3             | 1                               | 1 | 1 | 1 | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1       | 1   | 2710356  | Hinge pin for front cover                            |
|               |                                 |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |         | 1   | 423608   | Back cover for switch box                            |
|               |                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         | 1   | 170568   | Back cover for switch box                            |
|               | 4                               | 4 | 4 | 4 | 4 |   |   | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4       | 4   | 174914   | Wood screw fastening back cover to switch box (No.6) |
|               |                                 |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |         |   | 194856   | Wood screw fastening back cover to switch box (No.6) |
| 4,5<br>4<br>5 | 1                               | 1 | 1 | 1 | 1 |   |   |   | 1 |   | 1 |   |   |   |   |         | 423729  | Burning plate, under terminal block  |  |
|               |                                 |   |   |   |   |   | 2 |   | 2 |   | 2 | 2 | 2 | 2 | 2 | 2       | 2718712   | Arc deflector, front or back   |  |
|               |                                 |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |         | 170569  | Arc deflector, front   |  |
|               |                                 |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |         | 170570  | Arc deflector, back  |  |
|               |                                 |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |         | 170571  | Arc deflector, side  |  |
|               |                                 |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |         | 105136  | Machine screw fastening arc deflector front to arc deflector sides (10-32) |  |
|               | 6                               |   |   |   |   |   | 2 |   | 2 |   | 2 | 2 | 2 | 2 | 2 | 2       | 22384   | Machine screw fastening arc deflector front to arc deflector back (10-32)  |  |
|               |                                 |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |         | 134961  | Machine screw fastening arc chute sides to back cover (10-32)              |  |
|               |                                 |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |         | 2623781G1   | Arc chute cover (special for locomotive service)                           |  |
|               |                                 |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |         | 2164700G1   | Arc chute cover  |  |
| 7             | 1                               | 1 | 1 | 1 | 1 | 1 |   |   |   |   |   |   |   |   |   | 132331  | Terminal block with contact spring and binding screw            |  |  |
| 7             |                                 |   |   |   |   |   | 1 |   | 1 | 1 | 1 | 1 |   |   | 1 | 194946  | Terminal block with contact spring and binding screw            |  |  |
| 7             |                                 |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   | 175740  | Terminal block with contact spring and binding screw            |  |  |
| 7             |                                 |   |   |   |   |   |   |   |   |   |   |   | 1 | 1 | 1 | 4751942 | Terminal block with contact spring and binding screw            |  |  |
| 8             | 1                               | 1 | 1 | 1 | 1 | 1 |   |   | 1 |   |   |   |   |   |   | 437742  | Contact spring  |  |  |
| 8             |                                 |   |   |   |   |   | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 165806  | Contact spring  |  |  |
| 9             | 2                               | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |   |   | 2 | 144069  | Machine screw fastening contact spring to terminal block (8-36) |  |  |
| 9             |                                 |   |   |   |   |   |   |   |   |   |   |   | 2 | 2 | 2 | 139003  | Machine screw fastening contact spring to terminal block (8-36) |  |  |
| 10            | 1                               | 1 | 1 | 1 | 1 | 1 |   |   |   |   |   |   |   |   |   | 438666  | Terminal plate for Cat.132331                                   |  |  |
|               | 1                               | 1 | 1 | 1 | 1 | 1 |   |   |   |   |   |   | 1 | 1 | 1 | 143528  | Binding screw for Cat.132331 or 4751942 (10-32)                 |  |  |
| 10            |                                 |   |   |   |   |   | 1 | 1 | 1 | 1 | 1 | 1 |   |   | 1 | 105113  | Binding screw for Cat.194996 or 175740 (10-32)                  |  |  |
|               | 2                               | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 205086  | Machine screw fastening terminal block in position (8-36)       |  |  |
| 12            | 1                               | 1 | 1 | 1 | 1 | 1 |   |   |   |   |   |   |   |   |   | 132334  | Handle lever with handle and copper contact                     |  |  |
| 12            |                                 |   |   |   |   |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 175743  | Handle lever with handle and copper contact                     |  |  |
| 13            | 1                               | 1 | 1 | 1 | 1 | 1 |   |   |   |   |   |   |   |   |   | 132335  | Copper contact with rivets, for Cat.132334                      |  |  |
| 13            |                                 |   |   |   |   |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 165811  | Copper contact with rivets, for Cat.175743                      |  |  |
|               | 1                               |   |   |   | 1 |   | 1 |   |   | 1 | 1 | 1 | 1 |   | 1 | 132336  | Blowout coil  |  |  |
|               |                                 | 1 |   |   |   |   |   |   | 1 |   | 1 | 1 | 1 |   | 1 | 132337  | Blowout coil  |  |  |
|               |                                 |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   | 170574  | Blowout coil  |  |  |

**GENERAL ELECTRIC**

PARTS OF TYPE MS-46 SWITCHES

GEF-1448B

| Ref. No. | Number Required for Type MS-46- |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |                             | Cat.No.   | Description |
|----------|---------------------------------|---|---|---|----|---|---|---|---|---|---|---|---|---|---|---|-----------------------------|---|-------------|
|          | A                               | B | C | D | F  | G | H | J | K | L | N | P | Q | R | S | T |                             |   |             |
| 14       | 1                               | 1 | 1 | 1 | 1  |   |   |   |   |   |   |   |   |   |   | 1 | 2738182<br>132338           | Blowout coil<br>Pole piece with fulcrum for handle lever, and terminal  |             |
| 14       |                                 |   |   |   |    | 1 |   |   |   |   |   |   |   |   |   |   | 170575                      | Pole piece with fulcrum for handle lever  |             |
| 14       |                                 |   |   |   |    |   | 1 |   | 1 | 1 | 1 | 1 | 1 |   |   |   | 12D730                      | Pole piece with fulcrum for handle lever, and terminal  |             |
| 14       |                                 |   |   |   |    |   |   |   |   |   |   |   |   | 1 |   |   | 1 2710858                   | Pole piece with fulcrum for handle lever, and terminal  |             |
| 14       |                                 |   |   |   |    |   |   | 1 |   |   |   |   |   |   |   |   | 194949                      | Fulcrum with support, for handle lever  |             |
|          | 1                               | 1 | 1 | 1 | 1  |   | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 43X138<br>48X240            | Cap screw fastening pole piece in position (1/4 in.-20)<br>Cap screw fastening pole piece in position (1/4 in.-20)  |             |
|          | 1                               | 1 | 1 | 1 | 1  |   | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 406414<br>170577<br>20X542  | Insulation bushing for Cat.43X138<br>Insulation bushing for Cat.48X240<br>Cap screw fastening fulcrum support in position (1/4 in.-20)                        |             |
| 15       | 1                               | 1 | 1 | 1 | 1  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1444300<br>411741<br>133452 | Spring washer for lever fulcrum<br>Copper terminal for pole piece<br>Machine screw fastening terminal to pole piece (10-32)                                   |             |
|          | 1                               | 1 | 1 | 1 | 1  |   | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 132340<br>170578<br>170579  | Mica insulation between pole piece and switch box<br>Mica insulation between pole piece and switch box<br>Mica insulation between pole piece and blowout coil |             |
| 17       | 1                               | 1 | 1 | 1 | 1  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 132341                      | Pawl for handle lever   |             |
| 18       | 1                               | 1 | 1 | 1 | 1  |   |   |   |   |   |   |   |   |   |   |   | 132342                      | Pivot pin for pawl  |             |
| 18       |                                 |   |   |   |    | 1 |   |   |   |   |   |   |   |   |   |   | 170580                      | Pivot pin for pawl  |             |
| 18       |                                 |   |   |   |    |   | 1 | 1 | 1 | 1 | 1 | 1 |   |   | 1 |   | 1415961                     | Pivot pin for pawl  |             |
| 18       |                                 |   |   |   |    |   |   |   |   |   |   |   |   |   | 1 |   | 2710859                     | Pivot pin for pawl  |             |
| 19       | 1                               | 1 | 1 | 1 | 1  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2411264                     | Spring for pawl   |             |
| 22       | 1                               | 1 | 1 | 1 | 1  |   | 1 |   | 1 | 1 | 1 | 1 | 1 |   |   | 1 | 437833                      | Connection plate for lever fulcrum and pivot pin  |             |
| 22       |                                 |   |   |   |    | 1 |   |   |   |   |   |   |   |   |   |   | 170581                      | Connection plate for lever fulcrum and pivot pin  |             |
| 22       |                                 |   |   |   |    |   |   | 1 |   |   |   |   |   |   |   |   | 194950                      | Connection plate for lever fulcrum and pivot pin  |             |
| 22       |                                 |   |   |   |    |   |   |   |   |   |   |   |   | 1 |   | 1 | 2710855                     | Connection plate for lever fulcrum and pivot pin  |             |
|          |                                 |   |   |   |    |   |   |   | 1 |   |   |   |   |   |   |   | 180937                      | Machine screw fastening Cat. 194950 in position (10-32)   |             |
| 23       | 2                               | 2 | 2 |   | +1 |   |   |   |   |   |   |   |   |   |   |   | 170582                      | Fuse clip with guard and connection plate   |             |
| 23       |                                 |   |   | 2 |    |   |   |   |   |   |   |   |   |   |   |   | 170585                      | Fuse clip with terminal plate   |             |
| 23       |                                 |   |   | 1 |    |   |   |   |   |   |   |   |   |   |   |   | 170588                      | Fuse clip, lower, with guard and connection plate   |             |
| 23       |                                 |   |   |   |    | 2 |   |   |   |   |   |   |   |   |   |   | 4751943                     | Fuse clip with guard and connection plate   |             |
| 23       |                                 |   |   |   |    |   | 2 | 2 | 2 | 2 | 2 |   |   |   |   | 2 | 175748                      | Fuse clip with guard and connection plate   |             |
| 23       |                                 |   |   |   |    |   |   |   |   |   |   | 2 |   |   |   |   | 269850                      | Fuse clip with guard and connection plate   |             |
| 23       |                                 |   |   |   |    |   |   |   |   |   |   |   | 2 |   |   |   | 285604                      | Fuse clip with guard and connection plate   |             |
| 23       |                                 |   |   |   |    |   |   |   |   |   |   |   |   | 2 |   |   | 4751944                     | Fuse clip with guard and connection plate   |             |
|          | A                               | B | C | D | F  | G | H | J | K | L | N | P | Q | R | S | T |                             |   |             |

+ Upper

# GENERAL ELECTRIC

GEF-1448B

PARTS OF TYPE MS-46 SWITCHES

| Ref. No. | Number Required for Type MS-46- |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | Cat.No. | Description |  |
|----------|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|-------------|--|
|          | A                               | B | C | D | F | G | H | J | K | L | N | P | Q | R | S | T |         |             |  |
| 23       |                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2       | 4754436     | Fuse clip with guard and connection plate                        |
|          | 2                               | 2 | 2 | 2 | 2 |   |   |   |   |   |   |   |   |   |   |   |         | 438666      | Connection plate for Cat. 170582, 170585, or 170588              |
| 24       | 2                               | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 |   |   |   |   |   |   |         | 105113      | Binding screw for Cat.170582, 170585, 170588, or 4751943 (10-32) |
| 24       |                                 |   |   |   |   |   |   |   |   |   |   | 2 | 2 |   |   |   |         | 201296      | Binding screw for Cat.269850 or 285604 (10-32)                   |
| 24       |                                 |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |         | 13034       | Binding screw for Cat.4751944 (10-32)                            |
| 26       |                                 |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |         | 154898      | Machine screw fastening fuse clip in position (10-32)            |
|          | A                               | B | C | D | F | G | H | J | K | L | N | P | Q | R | S | T |         |             |  |

**PLAIN WASHERS**

| Cat.No. | Description                           |
|---------|---------------------------------------|
| 412287  | For No.10 screw (brass) Ref.11 and 25 |
| 150279  | For No.10 screw (13/32 in. O.D.)      |
| 143974  | For No.10 screw (1/2 in. O.D.)        |
| 165736  | For No.10 screw (5/8 in. O.D.)        |
| 498557  | For 1/4 in. screw (Ref.20)            |

**LOCK WASHERS**

| Cat.No. | Description                  |
|---------|------------------------------|
| 54X614  | For No. 8 screw              |
| 54X615  | For No.10 screw (light)      |
| 54X441  | For No.10 screw (std)        |
| 71X712  | For No.10 screw (Shakeproof) |

**NUTS**

|        |                        |
|--------|------------------------|
| 145996 | 10-32, hex. std        |
| 151175 | 10-32, hex. std, brass |
| 1X452  | 1/4 in.-20, hex. std   |

**COTTER PINS**

|        |                              |
|--------|------------------------------|
| 150606 | 5/64 in. by 1/2 in. (Ref.21) |
| 143522 | 3/32 in. by 3/4 in. (Ref.16) |

# GENERAL ELECTRIC

GENERAL OFFICE, SCHENECTADY, N. Y.

SALES OFFICES (Address nearest office)

|                         |                              |                           |                                 |
|-------------------------|------------------------------|---------------------------|---------------------------------|
| Akron, Ohio.....        | 335 South Main Street        | Minneapolis, Minn.....    | 107 South Fifth Street          |
| Atlanta, Ga.....        | 187 Spring Street, Northwest | Nashville, Tenn.....      | 234 Third Avenue, North         |
| Baltimore, Md.....      | 39 West Lexington Street     | Newark, N. J.....         | 744 Broad Street                |
| Bangor, Me.....         | 600 Main Street              | New Haven, Conn.....      | 129 Church Street               |
| Binghamton, N. Y.....   | 19 Chenango Street           | New Orleans, La.....      | 837 Gravier Street              |
| Birmingham, Ala.....    | 600 North Eighteenth Street  | New York, N. Y.....       | 570 Lexington Avenue            |
| Boston, Mass.....       | 140 Federal Street           | Niagara Falls, N. Y.....  | 201 Falls Street                |
| Buffalo, N. Y.....      | 1 West Genesee Street        | Oklahoma City, Okla.....  | 119 North Robinson Street       |
| Butte, Mont.....        | 20 West Granite Street       | Omaha, Nebr.....          | 409 South Seventeenth Street    |
| Cedar Rapids, Iowa..... | 203 Second Street, Southeast | Philadelphia, Pa.....     | 1405 Locust Street              |
| Charleston, W. Va.....  | 304 Capitol Street           | Phoenix, Ariz.....        | 441 West Madison Street         |
| Charlotte, N. C.....    | 200 South Tryon Street       | Pine Bluff, Ark.....      | 501 Main Street                 |
| Chicago, Ill.....       | 230 South Clark Street       | Pittsburgh, Pa.....       | 436 Seventh Avenue              |
| Cincinnati, Ohio.....   | 215 West Third Street        | Portland, Me.....         | 25 Bedford Street               |
| Cleveland, Ohio.....    | 4966 Woodland Avenue         | Portland, Ore.....        | 621 Southwest Alder Street      |
| Columbus, Ohio.....     | 40 South Third Street        | Providence, R. I.....     | 56 Pine Street                  |
| Dallas, Texas.....      | 1801 North Lamar Street      | Richmond, Va.....         | 700 East Franklin Street        |
| Davenport, Iowa.....    | 511 Pershing Avenue          | Roanoke, Va.....          | 202 South Jefferson Street      |
| Dayton, Ohio.....       | 25 North Main Street         | Rochester, N. Y.....      | 89 East Avenue                  |
| Denver, Colo.....       | 650 Seventeenth Street       | St. Louis, Mo.....        | 112 North Fourth Street         |
| Des Moines, Iowa.....   | 418 West Sixth Avenue        | Salt Lake City, Utah..... | 200 South Main Street           |
| Detroit, Mich.....      | 700 Antoinette Street        | San Antonio, Texas.....   | 201 Villita Street              |
| Duluth, Minn.....       | 14 West Superior Street      | San Francisco, Calif..... | 235 Montgomery Street           |
| El Paso, Texas.....     | 109 North Oregon Street      | Schenectady, N. Y.....    | 1 River Road                    |
| Erie, Pa.....           | 10 East Twelfth Street       | Seattle, Wash.....        | 821 Second Avenue               |
| Fort Wayne, Ind.....    | 1635 Broadway                | Spokane, Wash.....        | 421 Riverside Avenue            |
| Fort Worth, Texas.....  | 408 West Seventh Street      | Springfield, Ill.....     | 607 East Adams Street           |
| Grand Rapids, Mich..... | 148 Monroe Avenue, Northwest | Springfield, Mass.....    | 95 State Street                 |
| Hartford, Conn.....     | 338 Ann Street               | Syracuse, N. Y.....       | 113 South Salina Street         |
| Houston, Texas.....     | 1016 Walker Avenue           | Tacoma, Wash.....         | 1019 Pacific Avenue             |
| Indianapolis, Ind.....  | 110 North Illinois Street    | Toledo, Ohio.....         | 420 Madison Avenue              |
| Jackson, Mich.....      | 212 Michigan Avenue, West    | Tulsa, Okla.....          | 409 South Boston Street         |
| Jacksonville, Fla.....  | 237 West Forsyth Street      | Utica, N. Y.....          | 258 Genesee Street              |
| Kansas City, Mo.....    | 106 West Fourteenth Street   | Washington, D. C.....     | 806 Fifteenth Street, Northwest |
| Knoxville, Tenn.....    | 602 South Gay Street         | Waterbury, Conn.....      | 72 West Liberty Street          |
| Los Angeles, Calif..... | 5201 Santa Fe Avenue         | Wichita, Kan.....         | 116 South Main Street           |
| Louisville, Ky.....     | 455 South Fourth Street      | Worcester, Mass.....      | 165 Commercial Street           |
| Memphis, Tenn.....      | 8 North Third Street         | Yungtown, Ohio.....       | 25 East Boardman Street         |
| Milwaukee, Wis.....     | 940 West St. Paul Avenue     |                           |                                 |

Canada: Canadian General Electric Company, Ltd., Toronto

Hawaii: W. A. Ramsay, Ltd., Honolulu

Motor Dealers and Lamp Agencies in all large cities and towns

9