

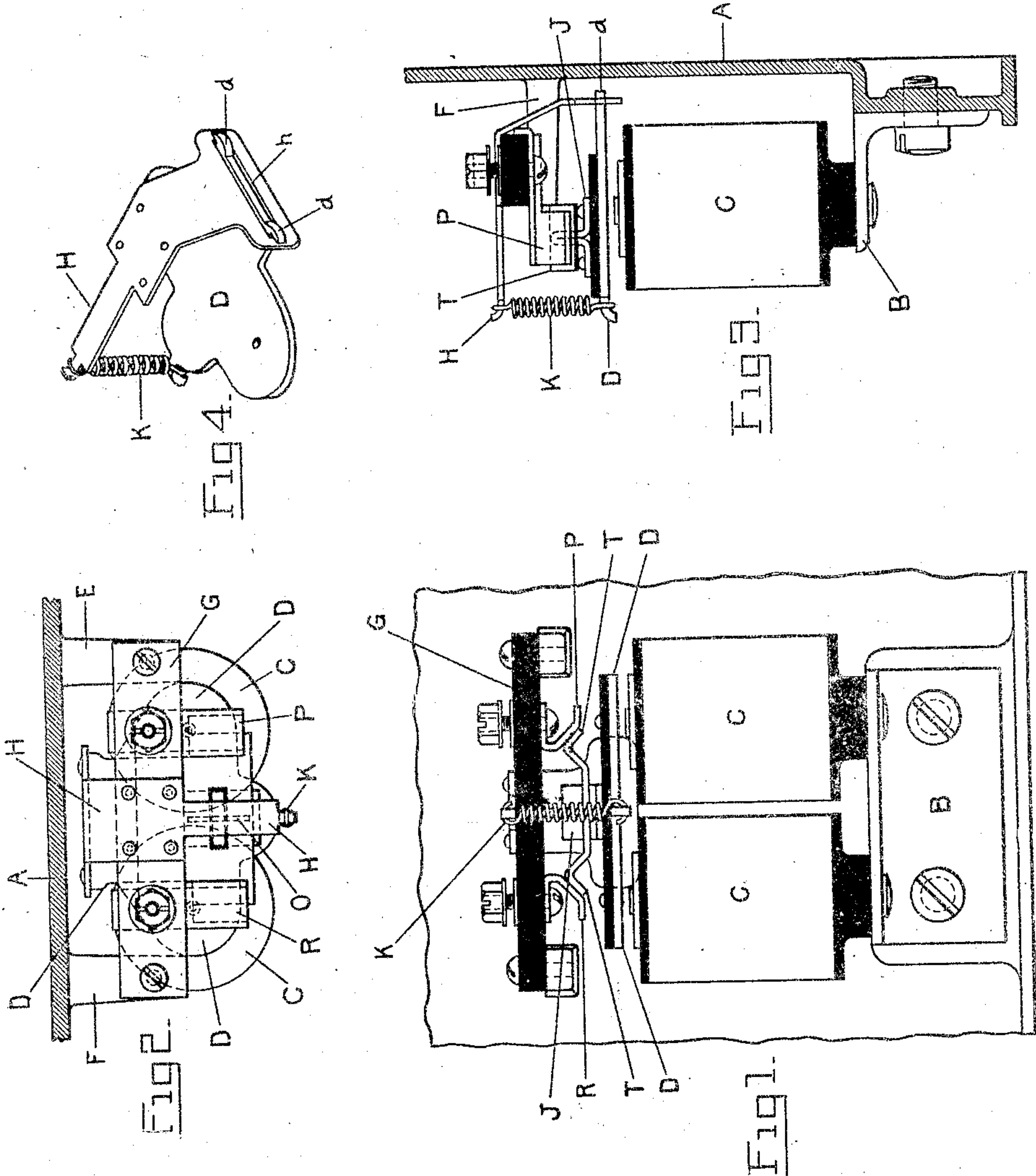
J. F. McELROY & J. E. MACOMBER.

RELAY MAGNET.

APPLICATION FILED MAY 13, 1910.

Patented Nov. 22, 1910.

976,586.



WITNESSES:
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UNITED STATES PATENT OFFICE

JAMES F. McELROY AND JOHN E. MACOMBER, OF ALBANY, NEW YORK, ASSIGNORS TO
CONSOLIDATED CAR HEATING COMPANY, A CORPORATION OF WEST VIRGINIA.

RELAY-MAGNET.

976,586.

Specification of Letters Patent.

Patented Nov. 22, 1910.

Application filed May 13, 1910. Serial No. 561,054.

To all whom it may concern:

Be it known that we, JAMES F. McELROY and JOHN E. MACOMBER, citizens of the United States, residing at Albany, county of Albany, State of New York, have invented certain new and useful Improvements in Relay-Magnets, the following being a full, clear, and exact disclosure of the one form of our invention which we at present deem preferable.

For a detailed description of the present form of our invention, reference may be had to the following specification and to the accompanying drawing, which illustrates our invention.

Figure 1 is a front elevation of our device, Fig. 2 is a top view thereof, Fig. 3 is a side view thereof and Fig. 4 shows the armature and its supporting piece.

Referring to the drawing, C C represent two magnet coils having their cores supported on the bracket B secured to the wall A of an inclosing box. The armature D consists of a stamped piece of sheet iron having at one edge a loose slotted connection with an angular piece of sheet metal H (see Fig. 4) which has at one end a slot *h* cut therein through which lugs *d* on the armature plate project and are bent over so as to retain the connection of the armature with the plate. At its opposite end the plate H has an extension between which and the armature is a retracting spring K. On top of the armature plate is a sheet of insulation upon which is a sheet metal projection J formed by bending a rectangular piece of metal into a loop and riveting the ends to the insulating sheet. The piece J passes loosely through the contact plate T which is designed to bridge the two stationary contacts R and P and connect them electrically. Both the contacts and the bridging piece are formed of sheet metal and the contacts are screwed to a bar of insulation G which also carries the aforesaid angular piece H and which is mounted on two projections E and F from the back plate A. The aforesaid projection J which enters loosely into an opening in the bridging plate T is secured by a pin O. By rea-

son of the loose connection thus established the opposite angular ends of the piece T can adapt themselves to the diagonal surfaces of the contacts P and R.

The construction above described provides a highly reliable form of relay which is extremely simple and cheap in construction, since its parts are principally formed of sheet metal plates produced by the stamping process.

What we claim as new and desire to secure by Letters Patent is:

1. The combination with a magnet of a sheet metal armature, a sheet metal supporting piece for the armature and having a loose connection therewith, a sheet metal loop carried by said armature, and a contact piece loosely secured to said loop.

2. The combination with a magnet of a sheet metal armature provided with lugs, a sheet metal supporting piece having a slot to receive said lugs, and provided with an arm overhanging said armature, a contact support carried by said armature, and a contact piece loosely secured to said support.

3. The combination with a magnet of a sheet metal armature provided with lugs, a sheet metal supporting piece having a slot to receive said lugs, and provided with an arm overhanging said armature, a sheet metal loop carried by said armature, and a contact piece loosely secured to said support.

4. The combination with a magnet of a sheet metal armature, a sheet metal supporting piece for the armature and having a loose connection therewith, said supporting piece being provided with an arm overhanging said armature, contacts carried by said overhanging portion, a contact piece, and means carried by said armature for loosely supporting said contact piece.

In witness whereof we have hereunto set our hands, before two subscribing witnesses, this 3rd day of May, 1910.

JAMES F. McELROY.
JOHN E. MACOMBER.

Witnesses:

ERNEST D. JANSEN,
ROBERT MCCOCHRANE.