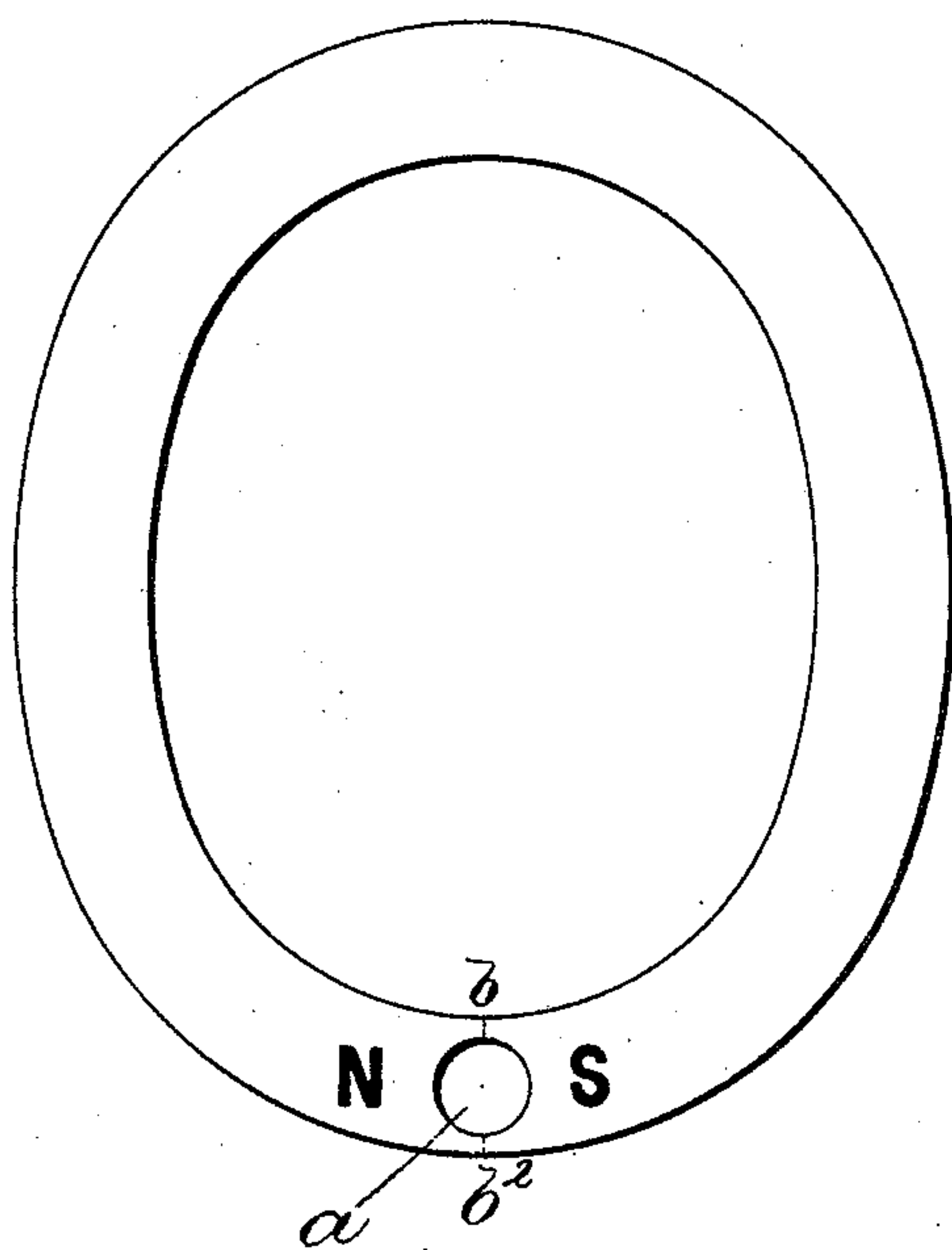


(No Model.)

A. H. HOYT.  
MAGNET.

No. 528,635.

Patented Nov. 6, 1894.



Witnesses

Jas. J. Maloney.  
M. E. Hill.

Inventor.

Adrian H. Hoyt.  
by J. P. Linnane  
Att'y.

# UNITED STATES PATENT OFFICE.

ADRIAN H. HOYT, OF PENACOOK, NEW HAMPSHIRE, ASSIGNOR TO THE  
WHITNEY ELECTRICAL INSTRUMENT COMPANY, OF SACO, MAINE.

## MAGNET.

SPECIFICATION forming part of Letters Patent No. 528,635, dated November 6, 1894.

Application filed March 14, 1894. Serial No. 503,568. (No model.)

*To all whom it may concern:*

Be it known that I, ADRIAN H. HOYT, of Penacook, county of Merrimac, State of New Hampshire, have invented an Improvement in Magnets, of which the following description, in connection with the accompanying drawing, is a specification, like letters on the drawing representing like parts.

My invention relates to a permanent magnet especially adapted for use in electric measuring instruments such as galvanometers, ammeters, &c., for affording a directive force to act upon an armature or coil through which an electric current to be measured passes.

The magnet forming the subject of this invention is composed of an endless bar of steel forming an open loop or link preferably circular or oval in shape and having a transverse hole or opening through it; said bar being magnetized to produce a consequent point near the said hole, or in other words, to produce opposite poles in the metal at opposite sides of the hole in which the armature works.

If desired the bar may be cut wholly through on the diametrical plane of the armature opening transverse to the bar, so as to separate the poles, although it is generally desirable to leave a slight magnetic connection between the poles around the hole or opening in which the armature works.

The drawing shows in plan view a magnet embodying this invention.

The said magnet is composed of an endless bar of steel forming a closed loop which may be circular or oval in shape as shown, and is

provided at one point in its length with a circular transverse hole or opening *a*, in which the armature or part to be subjected to the directive influence or magnetic field of the magnet works. The said bar is magnetized so as to produce a consequent point at the place where the hole *a* is located thus producing magnetic poles at opposite sides of the opening *a* as indicated by the letters N, S.

If desired the bar may be cut wholly through at one or both sides of the opening *a*, as indicated by the dotted lines at *b*, *b*<sup>2</sup>.

A magnet of this construction affords a more permanent and uniform field of magnetic force around the opening than those of usual construction in which the actual poles of the permanent magnet are separated at some distance from one another and are provided with pole pieces properly shaped to surround to a greater or less extent the armature or part to be subjected to the field of influence of the magnet.

I claim—

A permanent magnet composed of a bar of steel provided with a substantially circular opening and having its magnetic poles at opposite sides of and substantially surrounding said opening, substantially as and for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ADRIAN H. HOYT.

Witnesses:

JOS. P. LIVERMORE,  
M. E. HILL.