(No Model.)

H. B. COX.

GALVANOMETER.

No. 366,305. Patented July 12, 1887.

Fig. 1.

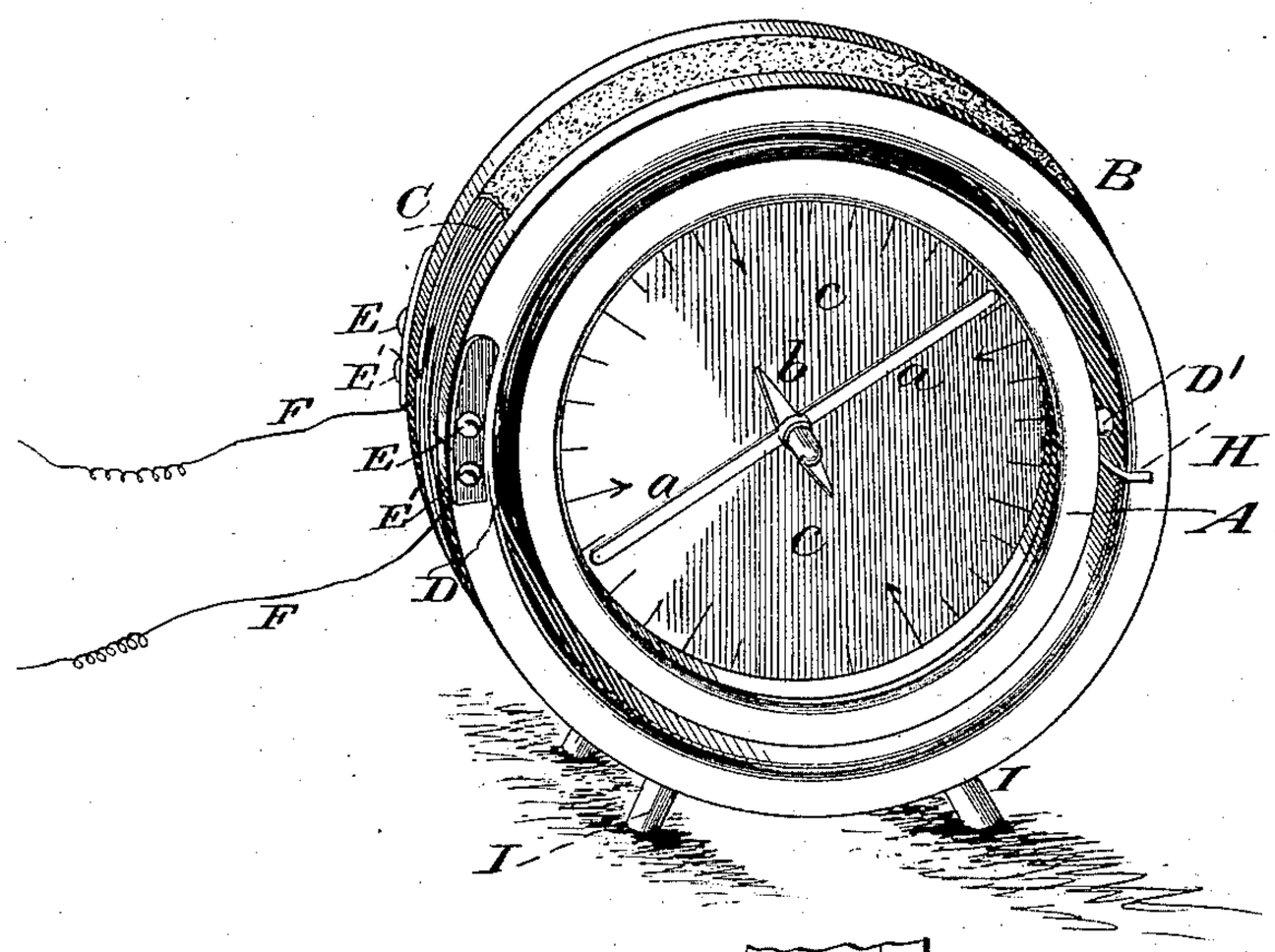


Fig. 4

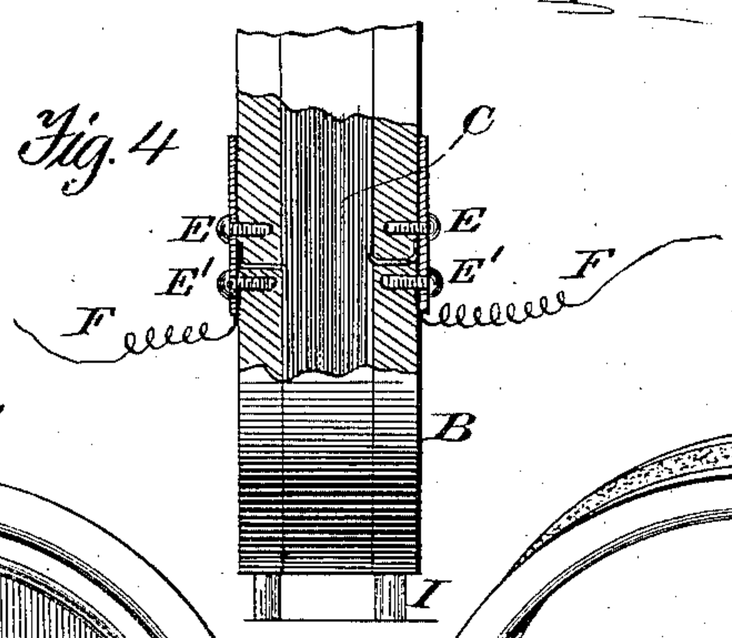


Fig. 3.

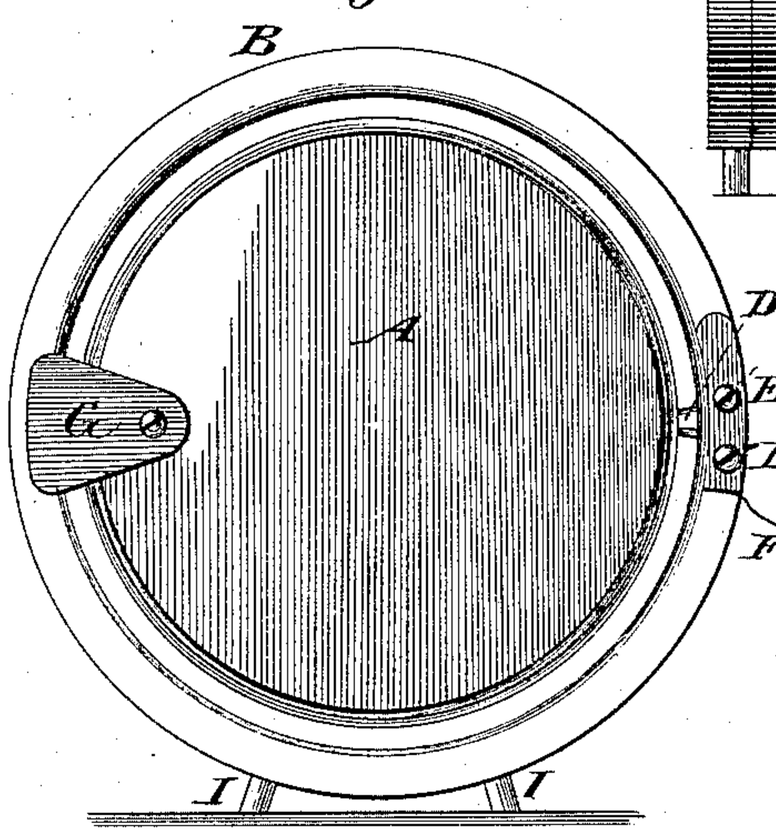
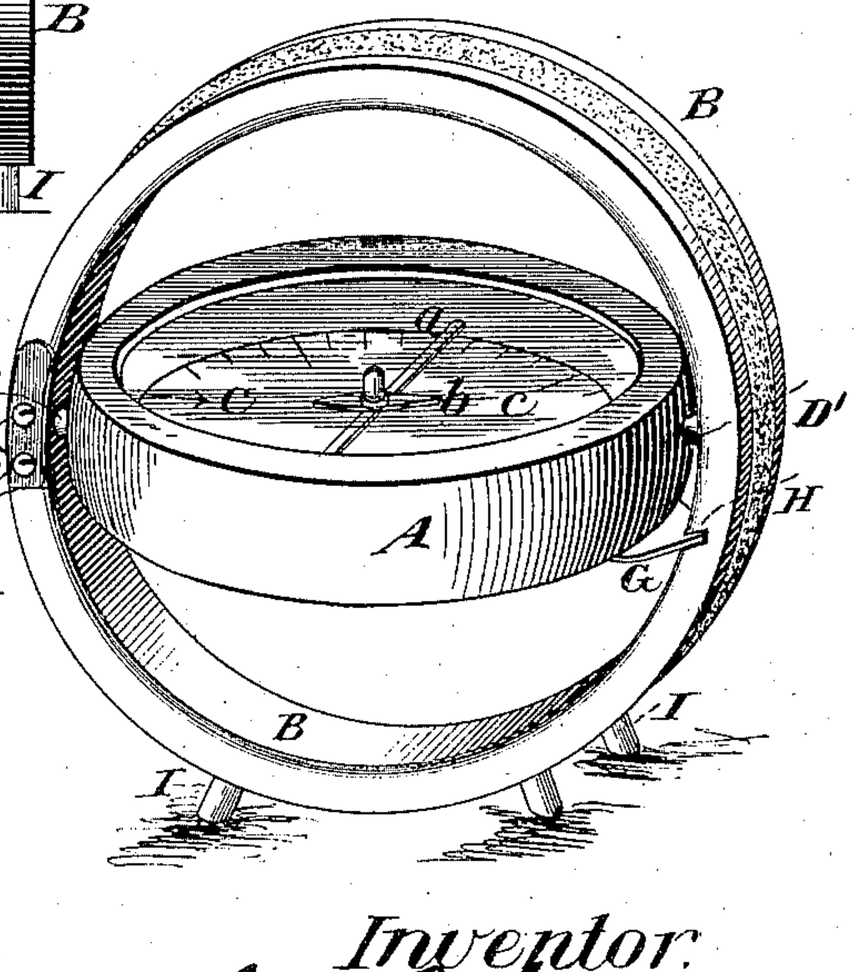


Fig. 2.



Witnesses.
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Attiy

UNITED STATES PATENT OFFICE.

HARRY B. COX, OF CINCINNATI, OHIO.

GALVANOMETER.

SPECIFICATION forming part of Letters Patent No. 366,305, dated July 12, 1887.

Application filed September 23, 1886. Serial No. 214,750. (No model.)

To all whom it may concern:

Be it known that I, HARRY B. COX, of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Galvanometers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention relates to galvanometers, and has for its object to furnish one of these instruments of such construction that while it retains all the capacities of such instruments as now made it can be folded, as it were, or put in a small case, so that it can be readily placed and carried in the pocket of the user.

With these objects in view my invention consists, first, in a galvanometer constructed of a circular case and a ring, the one pivoted within the other, so that it can be folded flat therein, the inner case containing the magnetic needle and tangent-arms and the outer ring the coil of wire or tape with which these parts are generally surrounded; second, in a galvanometer consisting of the inner case and outer ring and pivoted as before described, provided with suitable means for securing said parts in either their open or closed positions; and, third, in the improved construction, arrangement, and combination of parts, hereinafter described, and afterward specifically pointed out in the claims.

Inasmuch as the construction and operation of the ordinary parts of a galvanometer are so well known to all persons skilled in the art to which my invention appertains, and as my invention is not in the nature of an improvement upon any of such parts, I deem it unnecessary to illustrate or describe them here.

In the accompanying drawings, Figure 1 is a front elevation of my improved galvanometer in the position it assumes when folded up ready for insertion into a case or the pocket. Fig. 2 is a similar view showing my galvanometer in the position for use, the inner case being secured at right angles to the outer ring. Fig. 3 is a rear elevation showing the latch for securing the case and rings in both the positions shown in Figs. 1 and 2; and Fig. 4 is a section through the outer ring, showing the manner in which the connection with the line or circuit wire is made when using the instrument.

Like letters of reference mark the same parts in all the figures.

Referring to the drawings by letters, A is a circular case, of wood or hard rubber, in which is contained the magnetic needle *a*, the arms *b*, and dial-plate *c*, these parts being covered by a glass plate.

B is a ring, of wood or hard rubber, whose inner circumference is slightly larger than the circumference of the case A, and whose periphery is grooved circumferentially to receive wire forming a coil, C. Pins D D′ pass through the outer ring, B, by means of which the case A is pivoted or trunnioned therein, said pins being of course set diametrically opposite each other.

E E′ are binding-posts, (in this case springs,) one of which is connected to each end of the wire of the coil C, these binding-posts serving as points of connection with the circuit-wires F F in using the instrument.

G is a flat wide latch pivoted to the rear side of case A, which serves the double purpose of holding the case alternately in the positions shown in Figs. 1 and 2. To hold the parts in the position shown in Fig. 1, the latch is thrown out so that its outer wide end rests upon the edge of the ring B and prevents it from turning, the latch being located in line with one of the pivots. To secure the parts in the position shown in Fig. 2, the latch is pushed edgewise into a notch, H, in said outer ring, thus firmly securing it.

I I are legs or feet upon which to stand the instrument when in operative position.

The operation will be readily understood from the foregoing description. To change from either position to the other only requires that the latch be turned back to lie upon the flat back surface of the case A, when said case can be turned and again secured.

With my improved galvanometer it is unnecessary to carry a cumbersome case to hold it, and when folded it is much less liable to be injured by accident.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A galvanometer consisting of the outer

ring containing the coil and a case pivoted therein, containing the magnetic needle, for the purpose set forth.

2. A galvanometer consisting of a ring containing the coil, a case pivoted therein and containing the magnetic needle, and the latch G, pivoted to the back of the case, whereby the case may be held parallel to the ring in a folded position, as set forth.

3. A galvanometer consisting of a ring carrying the coil, a case pivoted therein, carrying the magnetic needle, and a thin flat latch pivoted to the back of the case A in line with one of the case-pivots, and the outer ring being notched at H, whereby the ring and case may be secured in either open or folded position, as set forth.

4. In combination, the ring B, grooved in its periphery to receive the coil C, notched at H, and provided with binding-posts E E′, the case A, pivoted in the ring B, and the flat wide latch G, pivoted to the back of the case A, said case containing the magnetic needle and dial-plate, all as set forth.

In testimony that I claim the foregoing as my own I hereto affix my signature in presence of two witnesses.

HARRY B. COX.

Witnesses:
O. E. DUFFY,
JULIUS SOLGER.