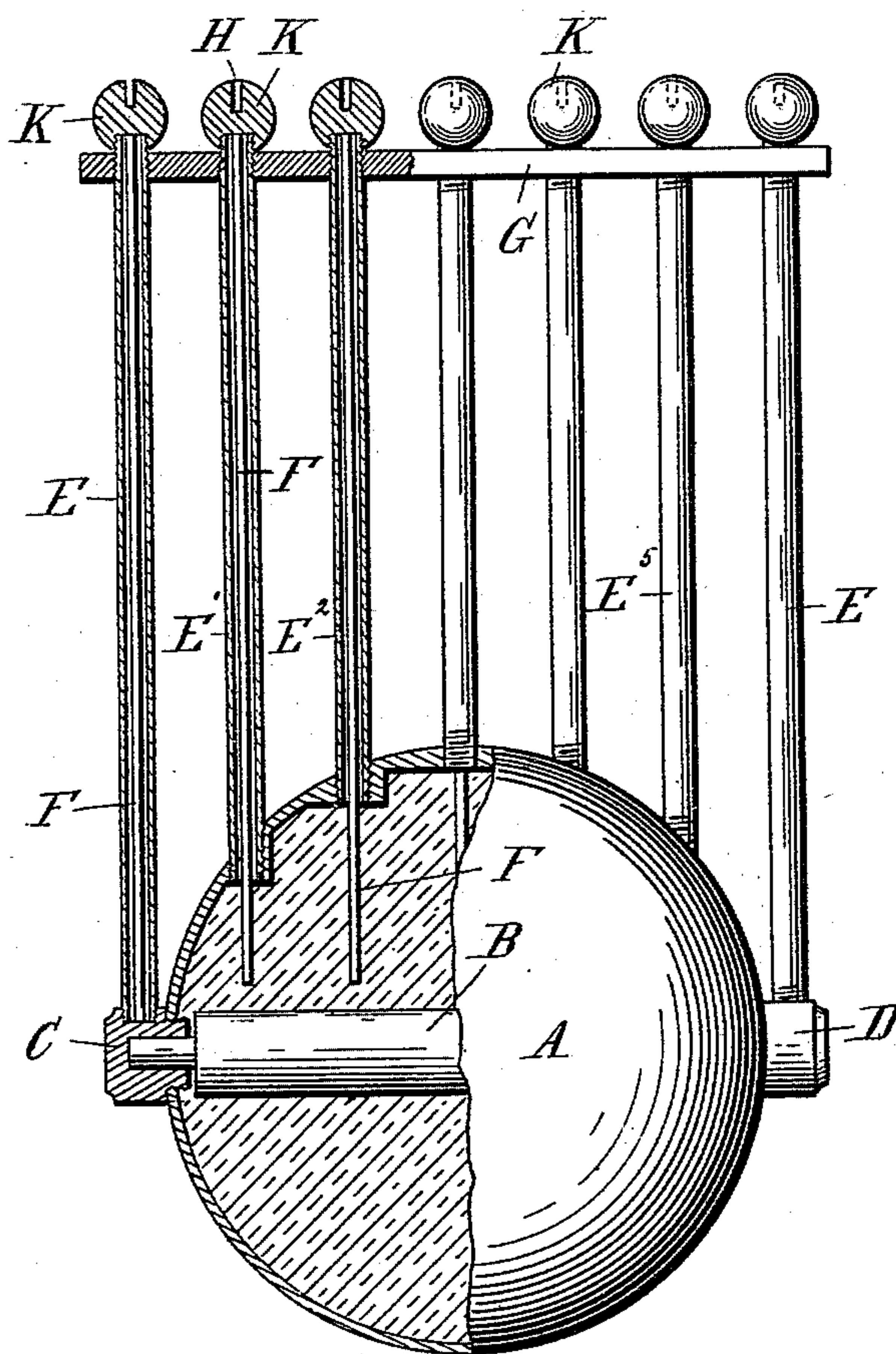


(No Model.)

T. H. HICKS.  
THERAPEUTIC MAGNET.

No. 420,300.

Patented Jan. 28, 1890.



Witnesses:  
P. M. Hulbert  
Geo. A. Gregg

Inventor:  
Thomas H. Hicks  
By James Whittemore  
Atty.



# UNITED STATES PATENT OFFICE.

THOMAS H. HICKS, OF DETROIT, MICHIGAN, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE THERAPEUTIC TERRESTRIAL EQUI-POISE COMPANY, OF MICHIGAN.

## THERAPEUTIC MAGNET.

SPECIFICATION forming part of Letters Patent No. 420,300, dated January 28, 1890.

Application filed October 12, 1889. Serial No. 326,874. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS H. HICKS, a subject of the Queen of Great Britain, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Therapeutic Magnets, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to new and useful improvements in therapeutic magnets; and the invention consists in the peculiar construction and arrangement of a magnetic field, all as more fully hereinafter described, and shown in the accompanying drawing, in which my device is shown half in elevation and the other half in central section.

A is a hollow metallic body, preferably of globular form. B is a magnet secured in the center or axis of the body and having its ends preferably projecting to the outside, said magnet being either a permanent or an electro magnet.

C and D are screw-plugs secured in screw-threaded apertures formed in opposite sides of the body A, the apertures being large enough, if desired, to fill the space therein with any neutral or insulating body, such as sulphur, resin, &c. The plugs are preferably interiorly recessed to receive the ends of the magnet to hold it securely in prescribed position.

E E are two metallic rods secured at right angles to the magnet in the screw-plugs C and D, respectively, and E' E'', &c., are intermediate metallic rods secured at intervals between the outer rods E E in the shell of the body and extending parallel to each other and to the outer rods to an equal distance from the axis of the magnet. These rods are preferably made of tubing, of any metal except iron, with an iron core F inclosed in each tube and extending into proximity to the magnet.

Near their outer ends the metallic rods are connected by a cross-bar G, of insulating material, and to each of the free ends of the rods is secured an enlarged metallic contact or pole piece K of lead, preferably of globular form and provided with a socket H, or other

convenient means, for detachably securing thereto pole-extensions of various forms. Thus it will be readily seen that in this respect all the metallic contacts or poles K being in different relation to the magnet or its field have different magnetic values or properties, and thereby the physician is enabled to intelligently select the one for application which in his experience suits the case, the patient being brought either in direct contact with this pole, or, if this is not practicable, indirectly through an extension secured thereto.

A further object of my invention is to so construct the device that the physiological effects of heat or cold may be combined with the magnetic effects, as both these effects combined are much more efficacious than either alone; and to this end I have constructed the device so that it may be readily placed into a cooling or into a heated medium contained in a suitable vessel.

The extensive metallic surface and body given to the device will form in such use a good conductor.

As the device is presented in the drawing, the iron cores in the tubes E E', &c., are inductively acted upon by the magnet B; and on account of the different relations to said magnet it may be said that the contacts K represent a magnetic scale. A similar result, however, may be obtained by omitting the iron cores altogether and arranging the contacts K merely in different parts of the field of force of the magnet B.

The globular form of the metallic body A forms a visual index of the intensity of the magnetic contacts K by the analogy with the globular form of the earth and its magnetic properties at various distances from the poles. By filling the interior spaces in the globe with a suitable material water or other liquid is excluded therefrom when the device is immersed.

What I claim as my invention is—

1. In a therapeutical magnet, the combination, with a magnet, of a series of metallic contacts or poles in the magnetic field thereof and in graduated proximity to the poles of said magnet, and a metallic frame support-



ing said magnet and series of poles in fixed relation to each other, substantially as described.

2. In a therapeutical magnet, the combination, with a magnet, of a series of metallic contacts or poles located in different parts of the magnetic field thereof, a hollow metallic casing inclosing and supporting the magnet, and a series of metallic rods secured thereto at right angles to the axis of the magnet and carrying the series of metallic rods secured thereto at right angles to the axis of the magnet and carrying the series of metallic contacts or poles, substantially as described.

3. In a therapeutical magnet, the combination of the magnet, the inclosing metallic

globe A, the screw-plugs C and D, supporting the magnet, the tubular rods E E, secured to the screw-plugs at right angles to the magnet, the intermediate tubular rods E' E'', &c., secured to the globe A, the cross-bar G, the metallic contacts of poles K, secured to the free ends of the tubular rods, and the iron cores secured in the tubular rods, all arranged substantially as described.

In testimony whereof I affix my signature, in presence of two witnesses, this 8th day of October, 1889.

THOMAS H. HICKS.

Witnesses:

M. B. O'DOHERTY,  
ED. MCBREARTY.