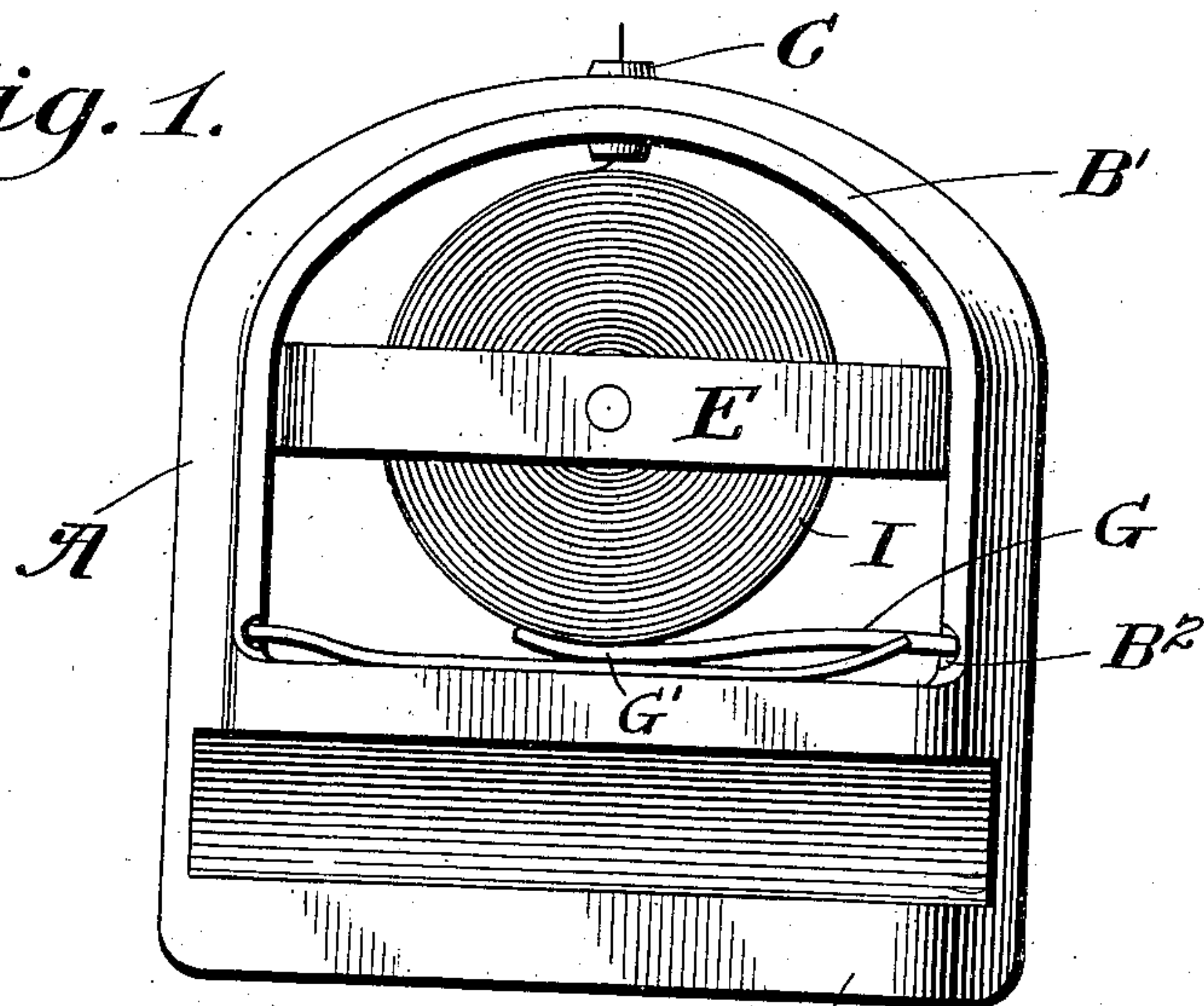


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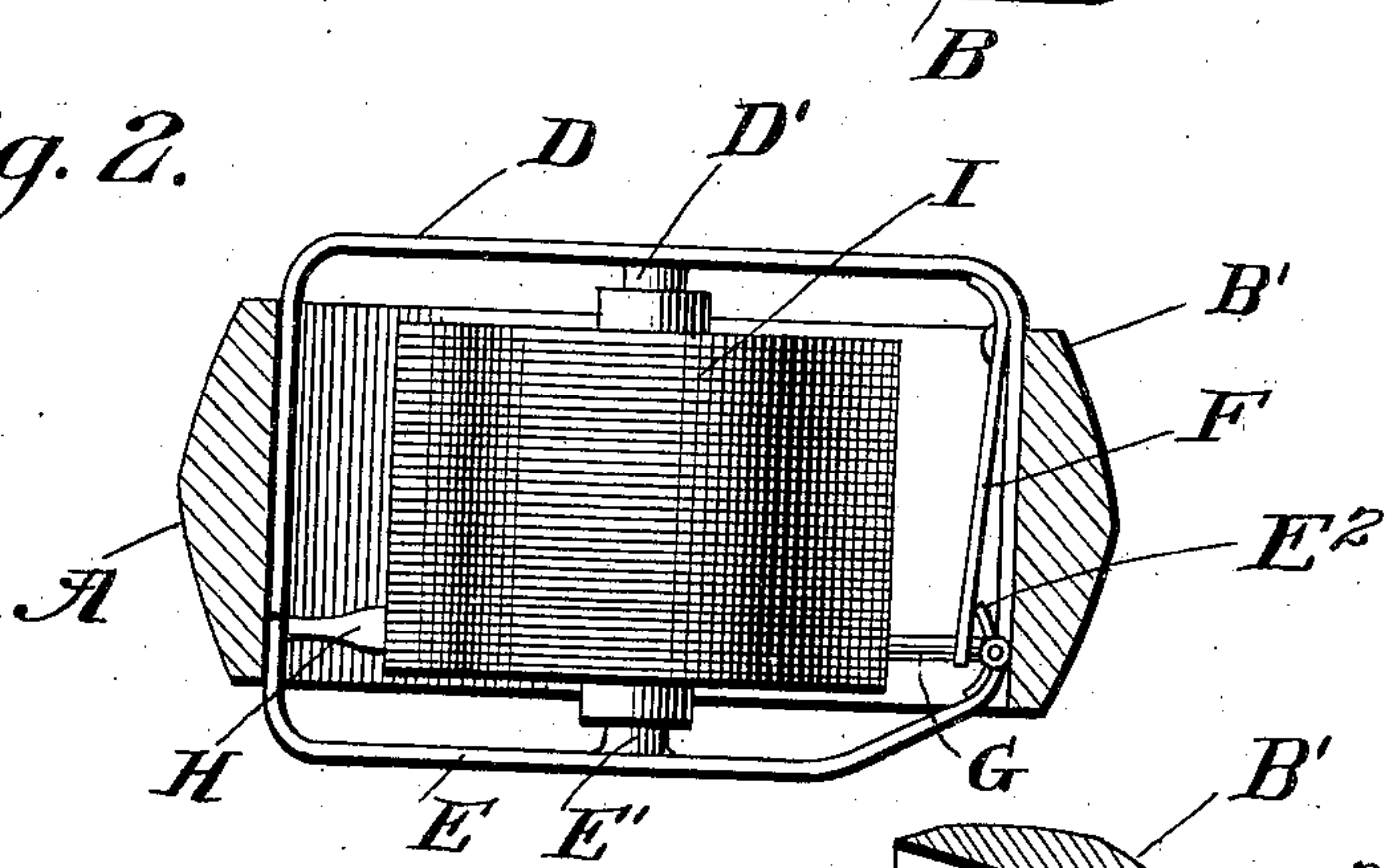
PATENTED JUNE 16, 1908.

H. McDOWELL.  
BOBBIN FRAME.  
APPLICATION FILED DEC. 27, 1907.

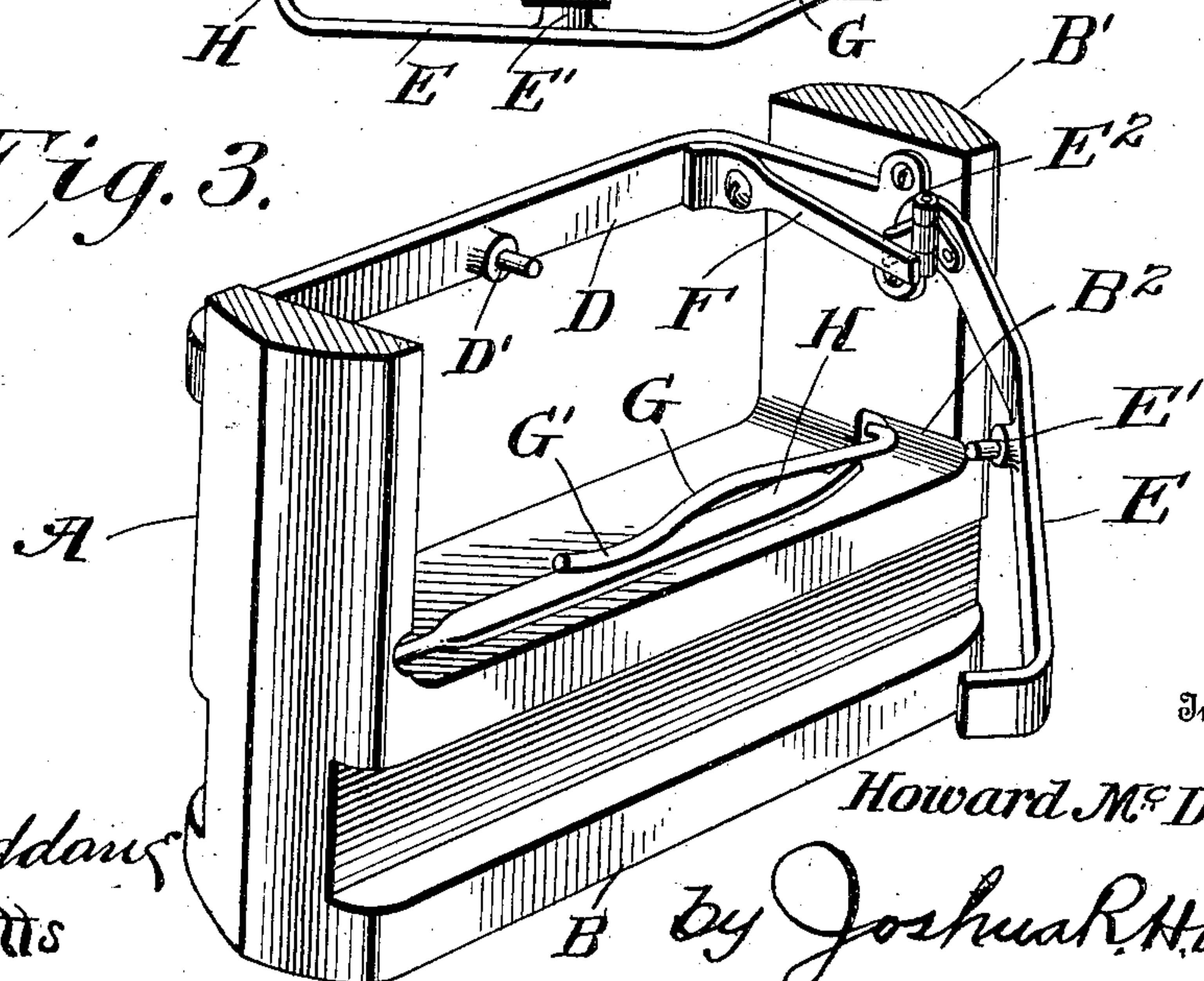
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## BOBBIN-FRAME.

No. 891,185.

Specification of Letters Patent.

Patented June 16, 1908.

Application filed December 27, 1907. Serial No. 408,284.

*To all whom it may concern:*

Be it known that I, HOWARD McDOWELL, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Bobbin-Frames, of which the following is a specification.

This invention relates to bobbin frames especially adapted to be used on looms for weaving tape, the object being to provide a frame which is so constructed that the bobbin or spool will be mounted transversely within the frame, whereby the thread will be unwound from the bobbin evenly.

Another object of my invention is to provide a tension device in connection with the frame which is so constructed that the tension will be applied to the bobbin at all times, thereby overcoming the difficulties now existing with bobbin frames now in use, where the spool is mounted longitudinally in the same and the thread is taken from first one end and then the other of the bobbin which at times allows the bobbin to run free and as the slack is taken up the warp thread is sometimes broken.

Another object of my invention is to provide very novel means for supporting a spool within the frame so that it can be easily and quickly detached or inserted.

These objects are attained by the novel arrangement and construction of parts herein-after fully described and shown in the accompanying drawings in which,

Figure 1, is a side view of my improved frame showing a bobbin mounted therein. Fig. 2, is a horizontal section of the same, and, Fig. 3, is a perspective view with the bobbin removed, the upper portion of the frame being broken away.

Referring to the drawings, A indicates my improved bobbin frame which comprises a base B, provided with the ordinary grooves for attaching it to the loom and an arch frame B', extending outwardly therefrom having a central thread guide eye C, through which the thread from the bobbin passes. Secured to the sides of the frame mid-way its height are the ends of a "U" shaped metal frame D, which extends out to one side and is provided with a central inwardly projecting bearing pin D', on which one end of a bobbin I, is mounted as will be hereinafter fully described. Hinged to one end of the frame is a bowed frame E, which is also provided with

a central bearing pin E', on which the other end of the bobbin I, is mounted and it will be seen that the bobbin will be held between the same so that it can be freely rotated, the pins extending out from bosses so as to hold the ends of the bobbin away from the frame.

The end of the bowed frame E, at the hinge is provided with a tongue E<sup>2</sup>, which is engaged by a flat spring F, secured to one end of the "U" shaped frame D, which normally holds the bowed frame in a closed position as clearly shown, but when thrown out as shown in Fig. 3, to its extreme outward movement the end of the tongue is brought into engagement with the flat spring so as to hold it in that position. The free end of the bowed frame E, overlaps the opposite end of the frame D, when in a closed position and it will be seen that when the bobbin is mounted on the pins between the frame it will be securely held in position and by simply swinging the frame E, outwardly, it can be readily removed.

The inner wall of one of the vertical side bars of the frame B', is cut away as shown at B<sup>2</sup>, and is provided with a socket in which the angle end of an arm G, is pivotally mounted, which is provided with a curved portion G', corresponding to the curvature of the thread on the spool and adapted to be held into engagement therewith by a bowed spring H, one end of which is embedded in the opposite side wall of the frame and is provided with a bifurcated free end which fits over the arm G, and it will be seen that tension will be applied to the arm at all times by the spring, whereby the arms will be held into engagement with the bobbin of thread or spool so that it will prevent the bobbin from running loose at any time as the thread is being unwound or drawn off the same.

From the foregoing description it will be seen that I have provided very novel means for supporting a bobbin which can be readily attached to any of the ordinary frames now in use and one which will apply tension evenly to the bobbin at all times.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is;

1. A device of the kind described comprising a base provided with an arched frame having a central thread guide eye, a frame secured horizontally in said frame provided with a bearing pin, a frame hinged to one end of said frame provided with a bearing pin,



the hinged end of the last mentioned frame being provided with a tongue, a flat spring secured to the first mentioned frame bearing against said tongue, said bearing pins forming supports for a bobbin.

5 2. A bobbin frame having a "U" shaped frame secured horizontally therein provided with a bearing pin, a spring actuated frame pivotally connected to said frame provided  
10 with a bearing pin, said bearing pins forming supports for a bobbin, an arm pivotally mounted in said frame and a spring for holding said arm into engagement with said bobbin.

15 3. The combination with a bobbin frame having its vertical members connected by a

horizontal frame at one side provided with an inwardly projecting bearing pin, a spring actuated pivoted frame connecting the said vertical members at its opposite side provided  
20 with an inwardly projecting bearing pin, an arm pivotally mounted in said frame, and a spring secured in said frame, having a bifurcated end adapted to engage said arm, for the purpose described.

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

HOWARD McDOWELL.

Witnesses:

GEO. S. McDOWELL,  
S. A. McDOWELL.