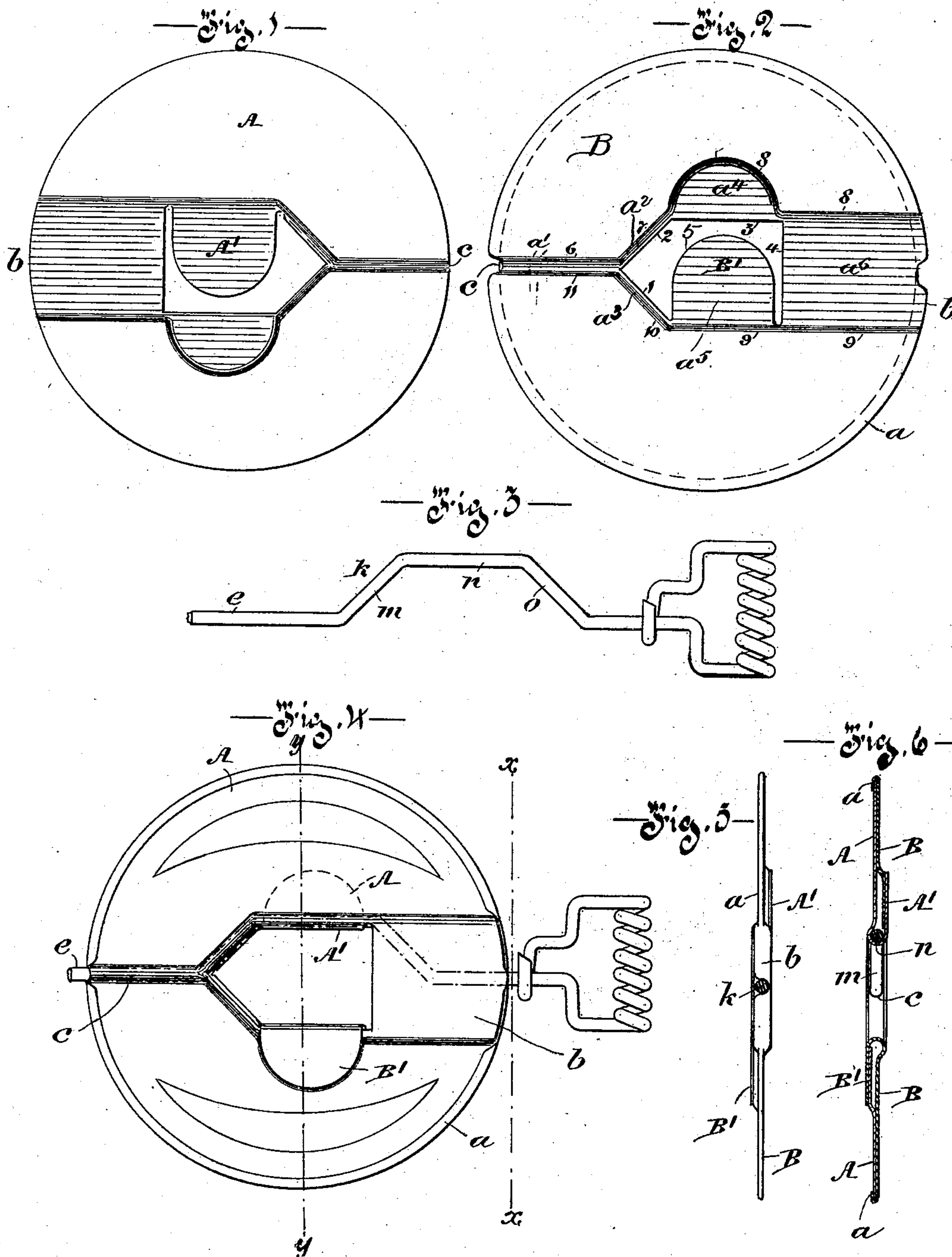


(No Model.)

T. DAVIDSON.
DAMPER.

No. 509,019.

Patented Nov. 21, 1893.



Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS DAVIDSON, OF MONTREAL, CANADA.

DAMPER.

SPECIFICATION forming part of Letters Patent No. 509,019, dated November 21, 1893.

Application filed July 17, 1893. Serial No. 480,772. (No model.)

To all whom it may concern:

Be it known that I, THOMAS DAVIDSON, of the city of Montreal, in the district of Montreal and Province of Quebec, Canada, have invented certain new and useful Improvements in Dampers; and I do hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to the method of securing the key (by which a damper is operated) to the damper body and has for its object to simplify and improve the method and construction.

The invention may be said to consist in forming an irregular guiding channel diametrically through the body so that the end of the spindle being inserted at the edge of the body on one side can be forced through the channel and project from the opposite side, the spindle being cranked and the form of the channel accommodating it so that the necessary leverage is secured for operating the damper.

For full comprehension however of the invention, reference must be had to the annexed drawings, forming a part of this specification, in which like symbols indicate corresponding parts and wherein—

Figures 1 and 2 are plan views of the inner sides of two plates or disks properly stamped to provide (when put together to form a single damper) the guiding channel for the key; Fig. 3 a separate view of the spindle; Fig. 4 a plan view of the complete damper, and Figs. 5 and 6 transverse sections respectively on the lines $x x$ and $y y$ Fig. 4.

The damper body is composed of two parts or disks A, B, the latter larger or of greater diameter than the other so that they can be placed together and the outer surplus edge a of the larger turned over the smaller as shown in Figs. 4 and 6. Each disk has a central portion of its metal cut away on the lines 1, 2, 3, 4 and 5 so as to leave projecting flaps or tongues A' B' attached to each and which when the disks are together are located on opposite sides of the axis of the spindle indicated by dotted chain lines in Fig. 4. In each disk the metal adjoining the edges 1, 2, 3, and confined centrally between the lines 6, 7,

8, 9, 10 and 11 is swaged or bulbed out of the plane of the rest of the body as shown at a' a^2 a^3 a^4 a^5 a^6 so that when the two disks are put together this depressed portion (the depression being outwardly) will form in the whole a channel or pocket with a wide opening as b at one side and a narrow one c at the opposite end.

The spindle is formed preferably of a piece of wire k bent as shown in Fig. 3 and cranked as at $m n o$ the portions $m n$ being parallel to and, when the key is in place, fitting against the sides of the groove lettered a^2 and the edge of the depression a^4 . By arranging the spindle with the plane of the cranked portion parallel with the plane of the damper body, inserting the end e , into the wide opening b of the channel and pressing the spindle forward its end will be guided by either of the inclined walls a^2 a^3 into the groove a' thus locating it in proper position as shown in Fig. 4. I may here remark however that one of the flaps (it is immaterial which) is usually turned down and back to overlap the other disk to assist in keeping the two disks together before the spindle is inserted and the spindle therefore held in place by the other flap which as shown at A' in Fig. 6 is bent or turned across the cranked portion of the spindle to perform such function.

What I claim is as follows:

1. A damper formed of two parts or disks to form a body having an irregular channel diametrically through it to receive and guide an irregularly shaped spindle, and in combination with such spindle, for the purposes set forth.

2. A damper formed of two parts or disks to form a body having an irregular channel diametrically through it to receive and guide an irregularly shaped spindle, and said body formed with a free locking portion adapted to hold said spindle in place in combination with such a spindle.

3. A damper formed of two parts or disks, cut away centrally to provide one or more free projecting tongues or flap portions and depressed outwardly to form an internal guiding channel and seat for the spindle and in combination with such spindle.

4. In a damper, the combination of two body parts having central locking pieces or flaps integral therewith and depressed to form a guiding channel or groove inclined in part
5 and a bent spindle for the purposes set forth.
5. In a damper, the combination of the disks A B cut away to provide flaps A' B' and depressed to form an irregular guiding channel or seat between them as shown and the bent or irregularly shaped spindle k held in place in said seat by one of said flaps as set forth.

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Witnesses:

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