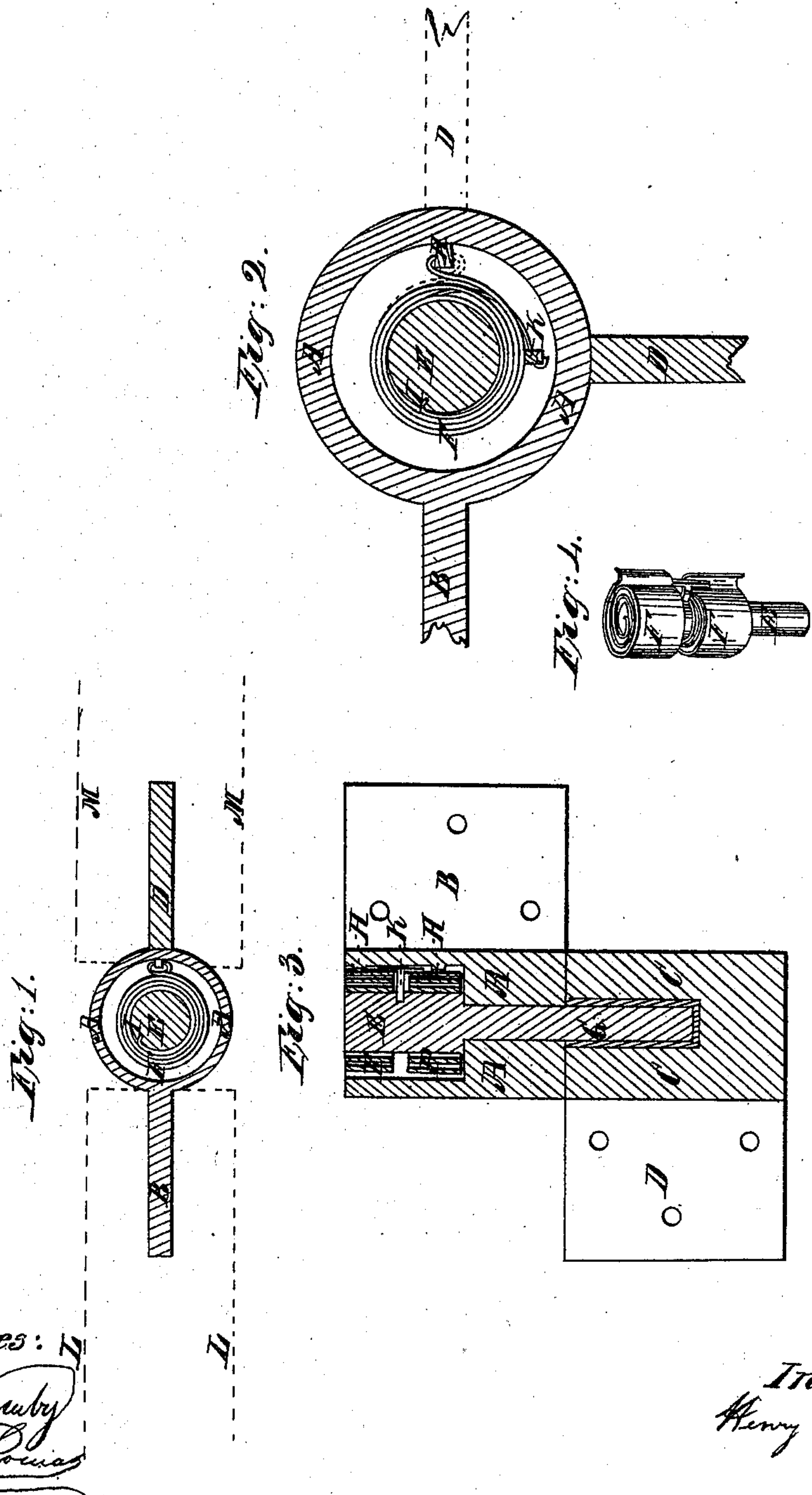


H. E. CANFIELD.
DOUBLE ACTING SPRING HINGE.

No. 12,853.

Patented May 15, 1855.



Witnesses:
Thos. R. Dumbley
Jno. C. Thomas

Inventor:
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UNITED STATES PATENT OFFICE.

HENRY E. CANFIELD, OF NEW YORK, N. Y.

DOUBLE-ACTING SPRING-HINGE.

Specification of Letters Patent No. 12,853, dated May 15, 1855.

To all whom it may concern:

Be it known that I, HENRY E. CANFIELD, of the city of New York, county of New York, and State of New York, have invented a new and Improved Method of Constructing Double-Acting Spring-Hinges; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and the letters and figures of reference marked thereon.

The nature of my invention consists in the arrangement of two springs on one pin in the manner and for the purpose herein-after described.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation.

In the accompanying drawings Figure 1 is a top view. Fig. 2 is an enlarged top view, showing the position of the catch (H) and the holder (K) when the upper cylinder is held fast and the lower cylinder with its leaf (D) and the pin (E) is moved from the position shown in the dotted lines. Fig. 3 is a sectional side view of the hinge showing the arrangement of the different parts. Fig. 4 is a perspective view of the pin (E) with the springs (F F) and the holder (K) showing the manner in which the said holder prevents the further uncoiling of the said springs.

Like letters in the different figures refer to like parts.

In Fig. 1 A A represents a cylinder of cast iron or other material, having a large hollow chamber of more than half the depth of said cylinder, the said chamber containing the upper part of the pin (E) and two flat coiled springs, coiled in opposite directions and attached to the pin (E) at I, the manner and position of said springs with the holder K is shown in Fig. 4 in which

F F represent the springs, E the pin and K the holder. On the inside of the cylinder A, A, Fig. 3, are two catches H H. In the same figure D represents a leaf attached to the lower cylinder C C for the purpose of securing the same to the door frame, represented by the dotted lines M M in the Fig. 1, the dotted lines in the same figure represented at L L show the position of the door with the projecting leaf B (which forms part of cylinder A A) let into the edge of the said door, and secured thereto.

Operation: The lower cylinder to which the pin E is secured and prevented from turning by the small pin G (Fig. 3), being made fast in the door frame as previously shown, the upper cylinder and with it the door would be free to turn on the pin E were it not for the catches H H, now by turning the said door in either direction it will bring one or the other of the catches (H H) in contact with one or the other of the hooked ends of the springs (shown in Fig. 4 by F F) which spring will cause the door when left free to return until the holder K relieves the catch of the strain from said spring, in which position the door is closed.

As I am aware that flat coiled springs secured in hollow cylindrical chambers have been before used in making double acting spring hinges therefore I disclaim their invention. But

What I do claim and desire to secure by Letters Patent, is,

The attachment to one pin, of two flat coiled springs coiled in opposite directions in combination with the holder K or its equivalent.

HENRY E. CANFIELD.

Witnesses:

GEO. C. THOMAS,
THO. R. QUINBY.