

No. 746,054.

PATENTED DEC. 8, 1903.

A. F. ENQUIST.
CONVERTIBLE HINGE.

APPLICATION FILED MAY 18, 1903.

NO MODEL.

Fig I

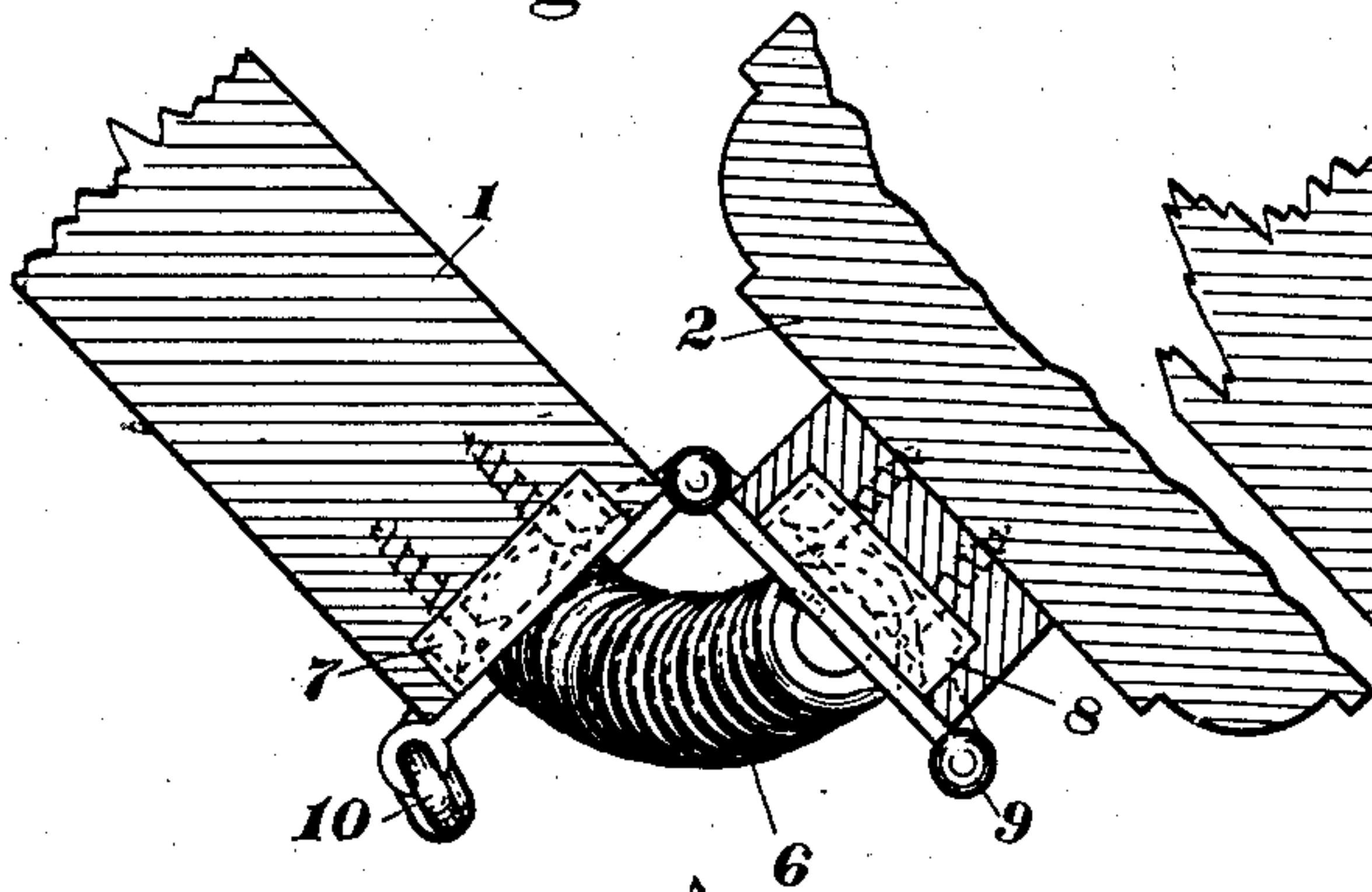


Fig II

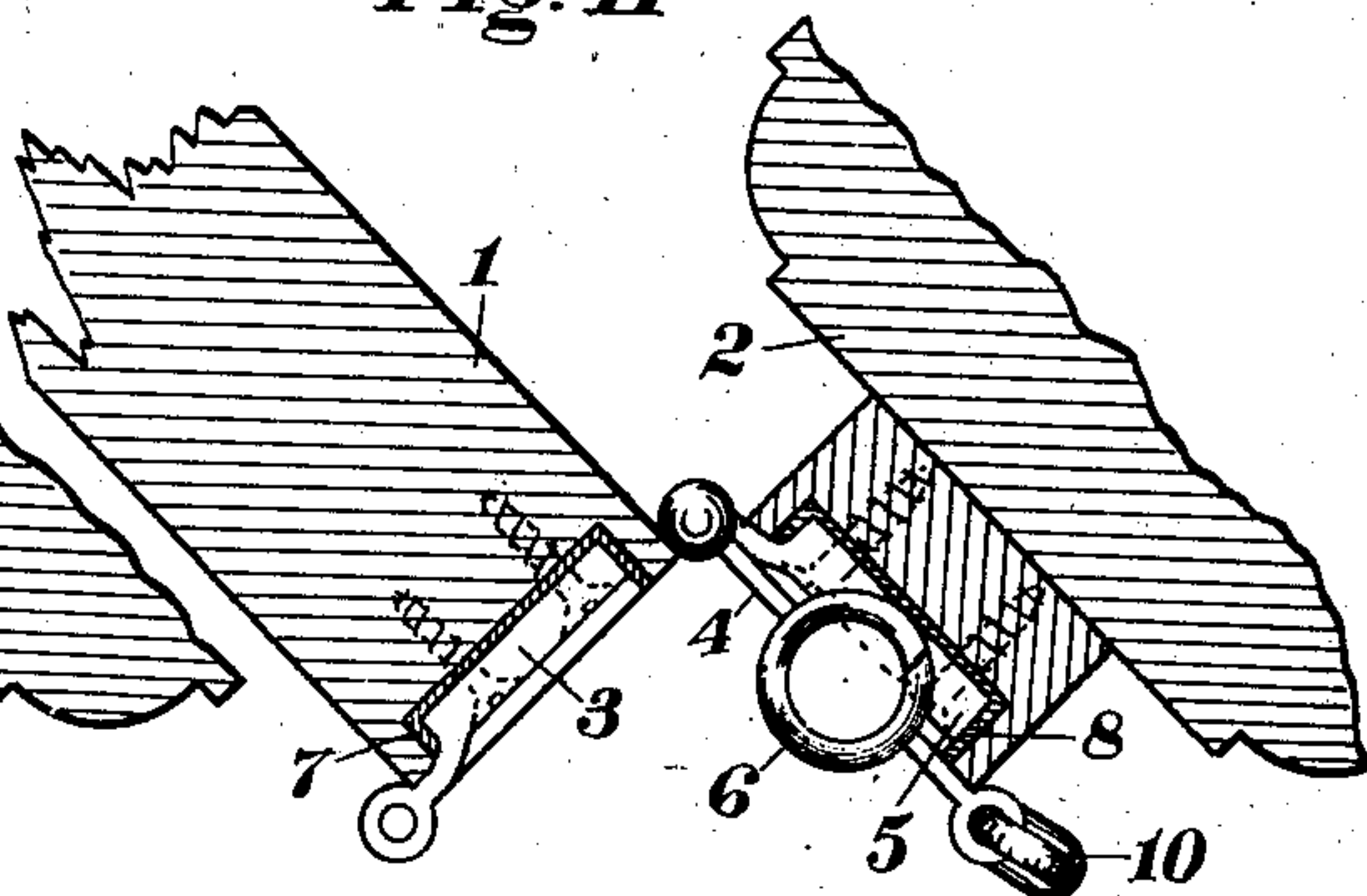


Fig III

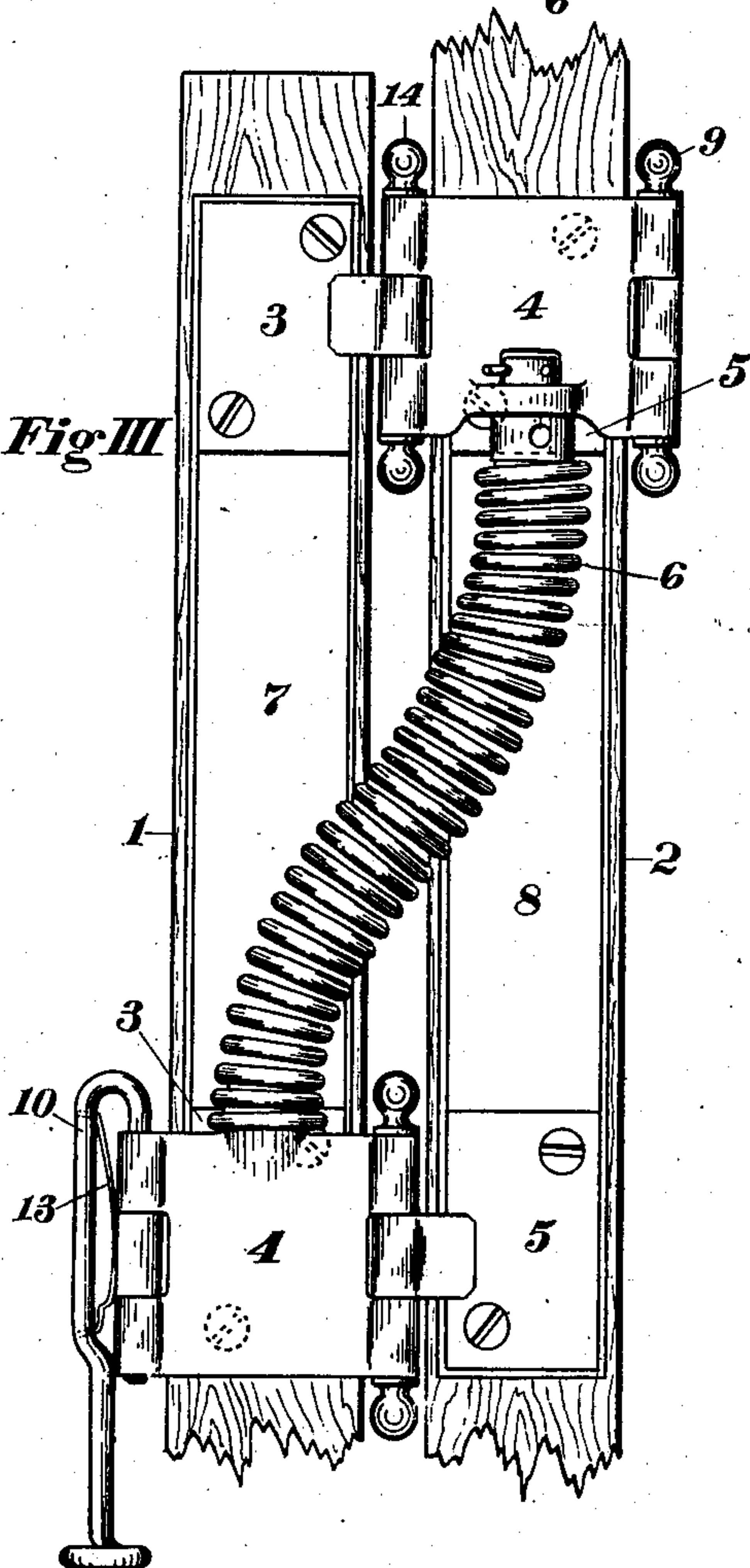
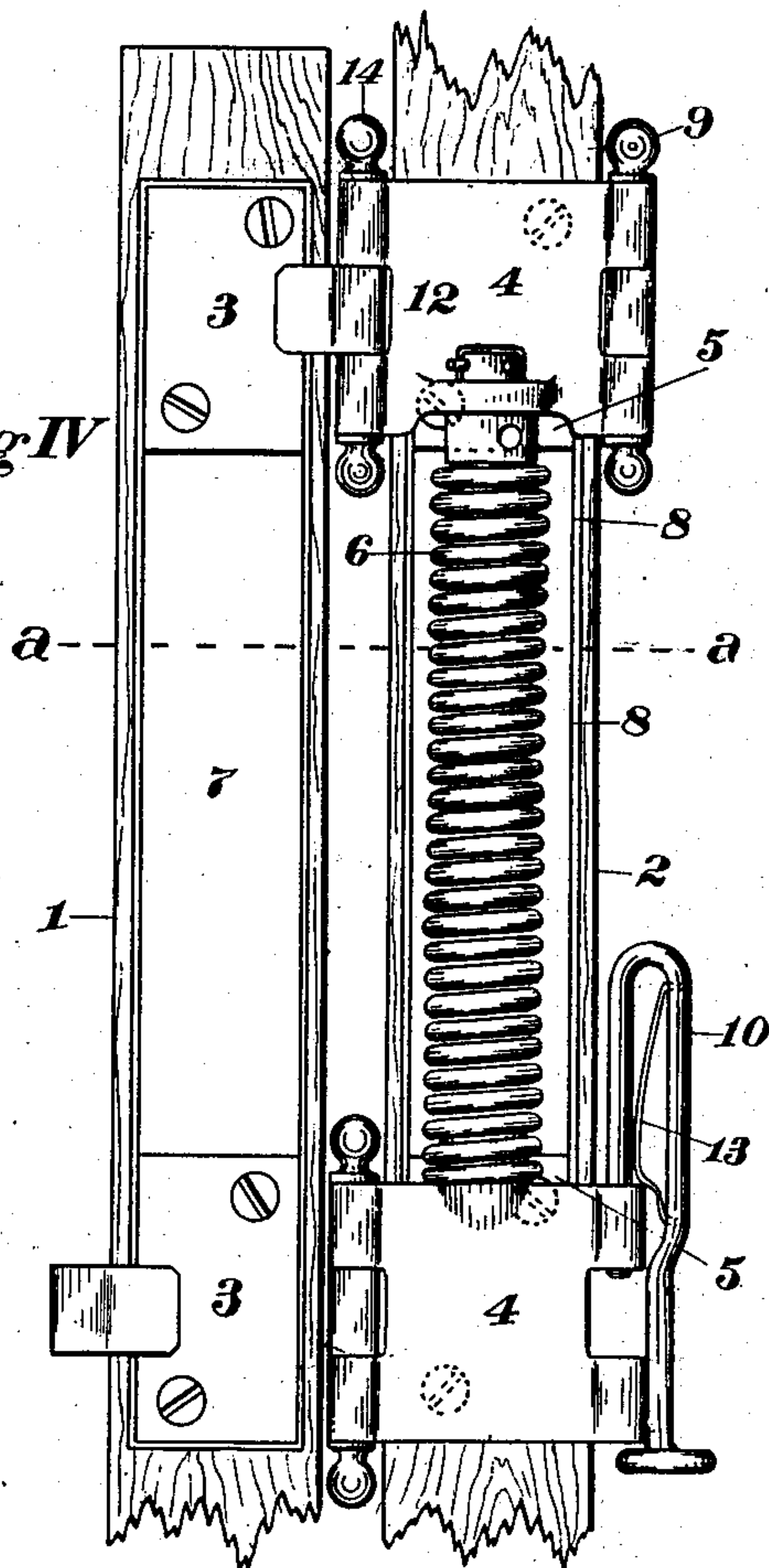


Fig IV



WITNESSES:

P. W. Lander,
Walter D. Bent

INVENTOR:

Axel E. Enquist,
By J. Richards & Co.
Attys

UNITED STATES PATENT OFFICE.

AXEL F. ENQUIST, OF SAN FRANCISCO, CALIFORNIA.

CONVERTIBLE HINGE.

SPECIFICATION forming part of Letters Patent No. 746,054, dated December 8, 1903.

Application filed May 18, 1903. Serial No. 157,592. (No model.)

To all whom it may concern:

Be it known that I, AXEL F. ENQUIST, a citizen of the United States, residing at San Francisco, county of San Francisco, and State of California, have invented certain new and useful Improvements in Convertible Hinges; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to hinges for swinging doors and to certain useful improvements therein.

The improvement in such hinges consists in devices whereby they are convertible from a free to a spring hinge or the reverse, as convenience may require, retaining in each case the functions and purpose of the two kinds of hinges.

The objects of my invention are to arrange a door at option to close automatically or to stand free, and thus meet the common requirements of use by a simple and inexpensive adjustment of parts. To attain this purpose, I construct hinges as described in the following specification, and illustrated by the accompanying drawings, forming a part thereof.

Figure I shows a top or plan view of one of my improved hinges with its door-closing spring in action; Fig. II, a similar view, but in section on the line *a a* in Fig. IV with the hinge operating free without strain and in the usual manner of a common hinge. Fig. III is a front or face elevation of the hinge with the door-closing spring in action as in Fig. I, and Fig. IV a similar front view of the same hinge acting free as in Fig. II.

The automatic closing of doors by means of spring-hinges is a matter of great convenience, conserving various useful purposes; but in nearly all cases it is desirable at times to have doors remain open, and unless the closing devices are detached or rendered inert it is necessary to fasten the doors to hold them open. Such provision keeps the hinges continually under strain, is inconvenient, and incurs a risk of slamming and annoyance when accidentally released. To obviate this objection, I provide convertible hinges, substantially as shown in the drawings, where 1 is a

section of a door, and 2 the jamb, to which the door is hung.

The parts 3, 4, and 5 form a double hinge adapted to swing either way, the central or intermediate members 4, connected by a torsional spring 6, that tends to close these against the fixed parts on the door-jamb 2.

The hinges, two in number forming a set, are connected by the trough-like bars 7 and 8, that when closed, or when the door 1 is shut, form a housing for the spring 6, also give stability to the hinges and hold them in alinement. Such construction of spring-hinges and other modifications of the same being well known and applied does not constitute a part of my invention now to be explained, referring first to Figs. I and III. In this case the intermediate leaves or parts 4 are locked to the stationary parts 3 and 5 by the pivot-pins 9 and 10, so that when the door is opened the torsional strain of the spring 6 tends to close the door 1. The same thing occurs when the door 1 is swung the other way; but it will be seen that if the pin 10 is removed or pushed up, as in Fig. IV, the part 4 of the lower hinge and the spring 6 become inert, and the door 1 swings freely on the upper hinge at 12. In this manner the hinge is converted from a spring or self-closing one to a simple or common hinge by moving the sliding pin 10, as in Fig. IV, or, in other words, disconnecting the part 4 from the parts 3 and 5.

The pin 10 can be arranged in various ways. The form shown is found suitable in practice, a spring keeping the pin in position when raised, as in Fig. IV.

It will be understood that if the door 1 is to be swung in the direction opposite to that shown in the drawings the same result is attained by shifting the movable pin 10 to the opposite side. It will also be understood that if a door is to be swung in one direction only but one of the parts 4 is required, one end of the spring 6 being fastened to the parts 3 or 5, accordingly as the door is swung right or left, the pin 10 acting in the same manner as before described.

Having thus explained the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a double-acting spring-hinge comprising in its construction hinge-plates adapted to be removably secured to a door and its jamb respectively, the combination of upper and
5 lower intermediate plates pivotally connected to the fixed plates, and a spring operatively connected to said intermediate plates, with adjustable means for connecting or disconnecting one of said intermediate plates with
10 one of the fixed plates, whereby the hinge

may be converted from a spring-actuated hinge to an ordinary hinge, and vice versa, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of 15 two subscribing witnesses.

AXEL F. ENQUIST.

Witnesses:

P. W. J. LANDER,
M. L. JONES.