

(No Model.)

J. HENRY.
SPRING HINGE.

No. 538,448.

Patented Apr. 30, 1895.

Fig. 1.

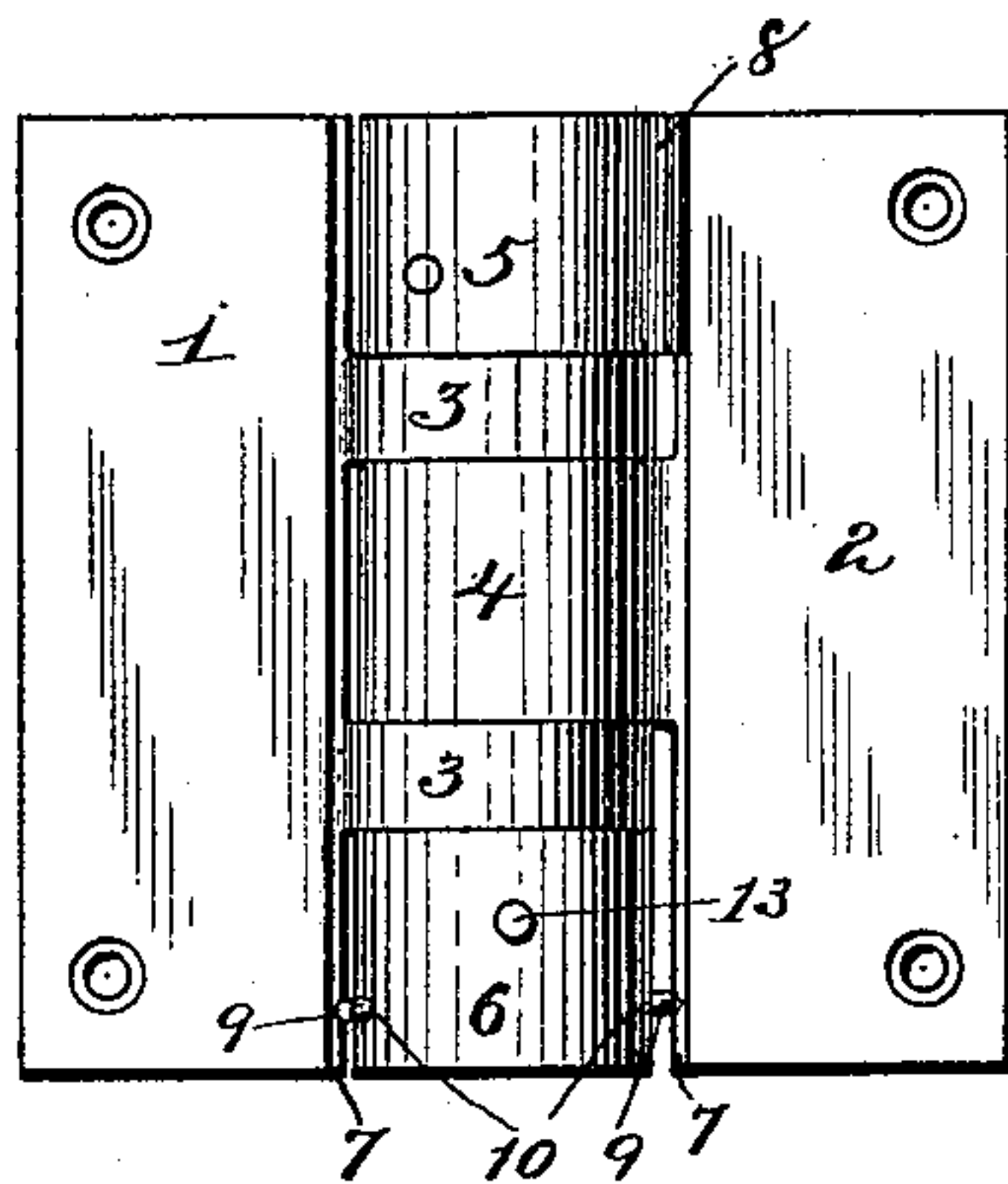


Fig. 2.

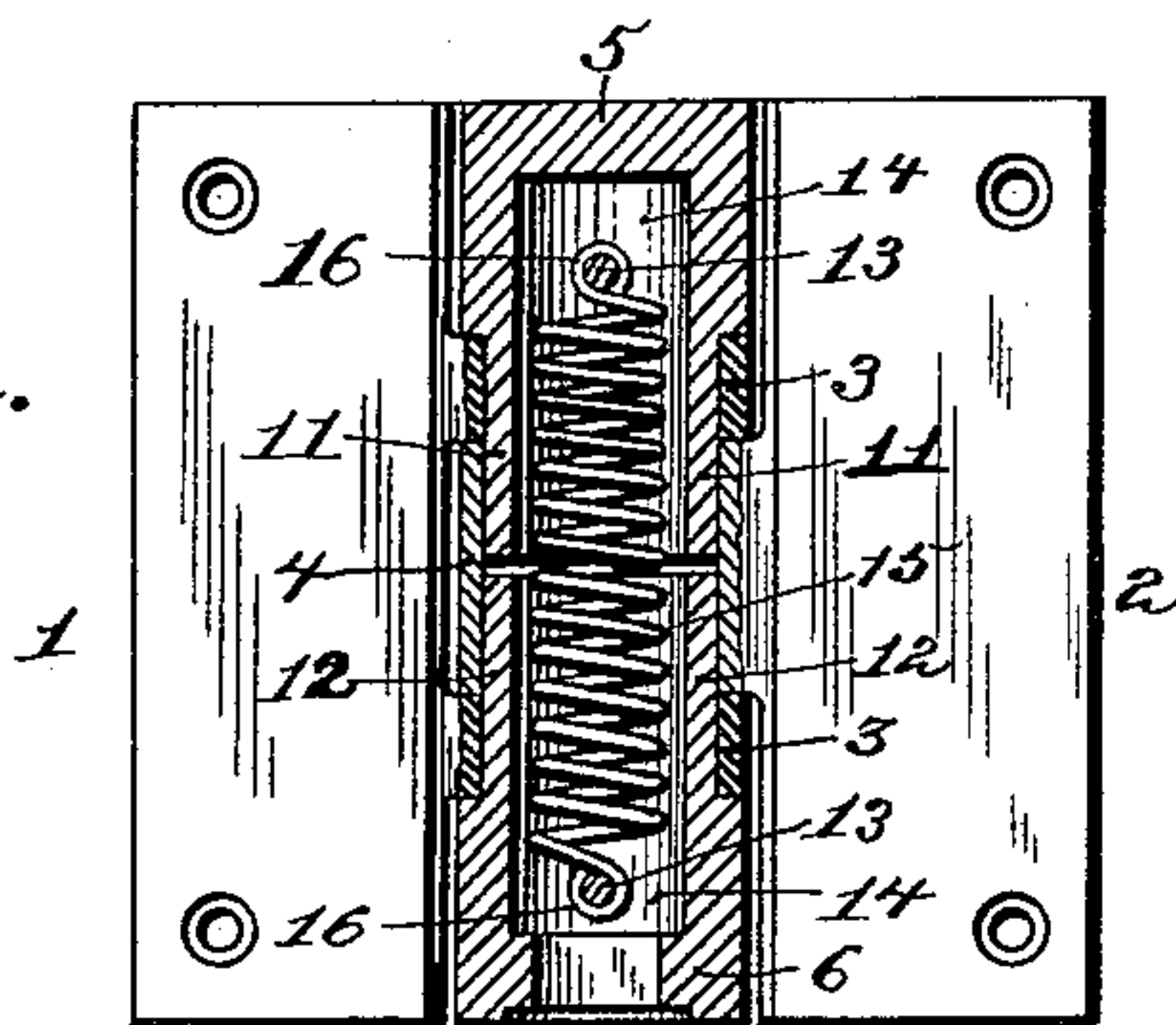


Fig. 4.

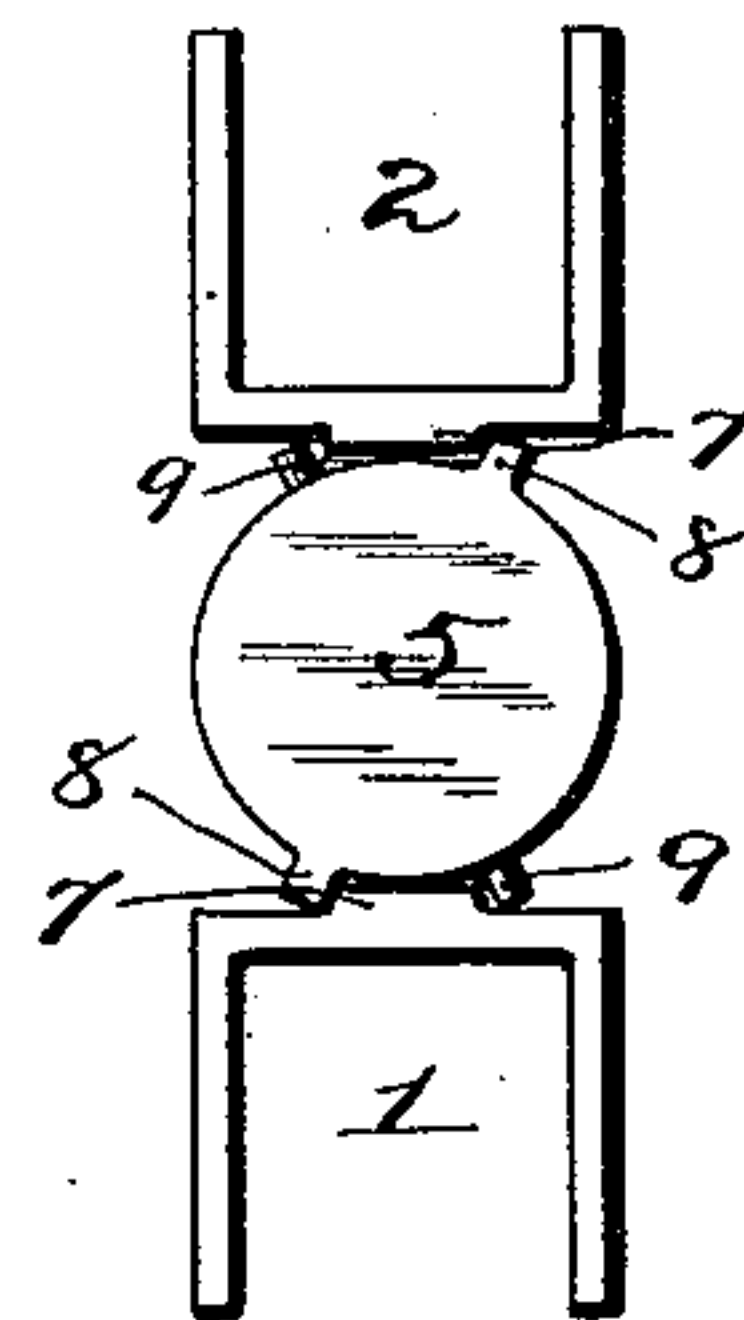
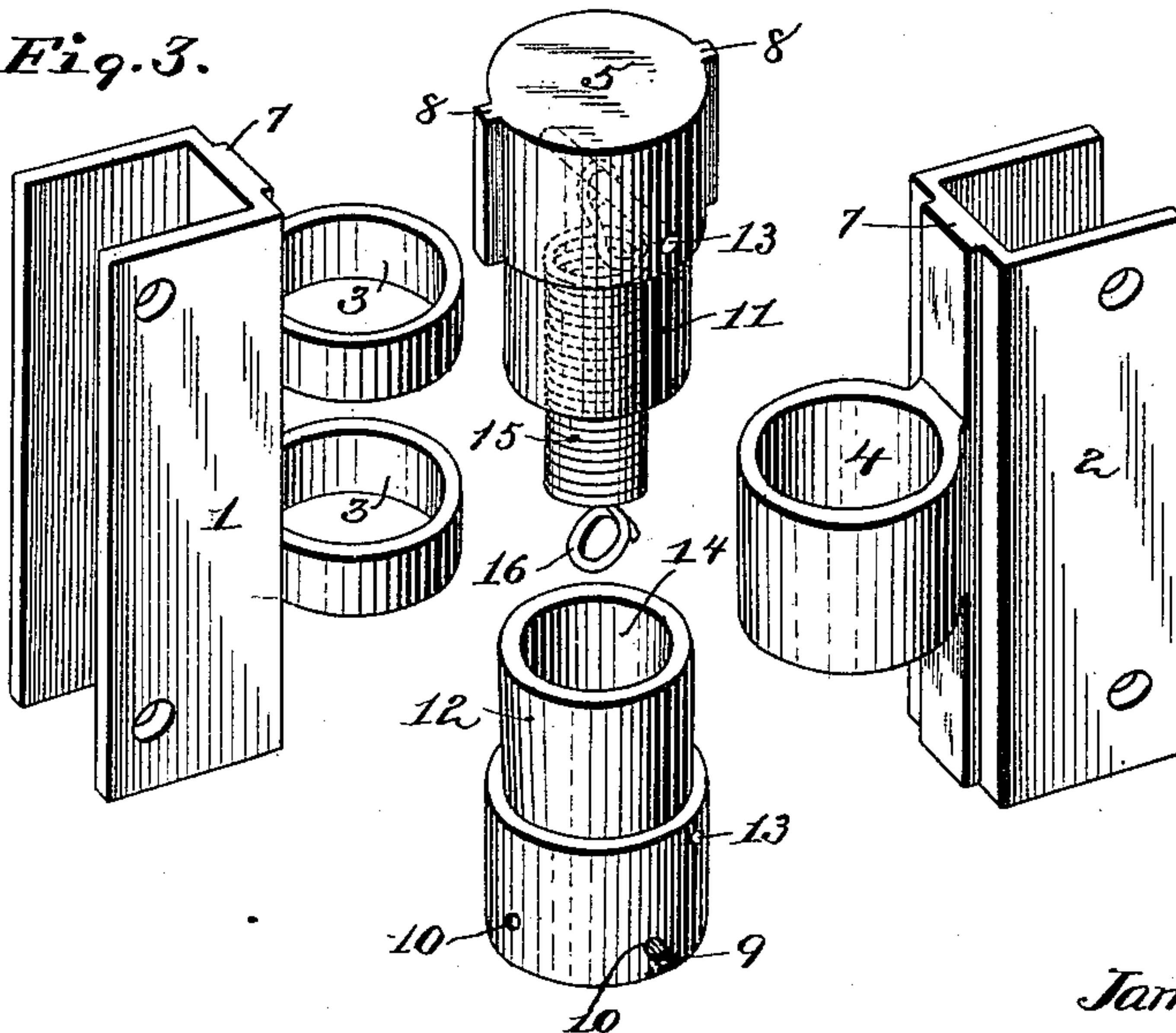


Fig. 3.



Witnesses

Walter Pomeroy
[Signature]

By his Attorneys.

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UNITED STATES PATENT OFFICE.

JAMES HENRY, OF READING, PENNSYLVANIA.

SPRING-HINGE.

SPECIFICATION forming part of Letters Patent No. 538,448, dated April 30, 1895.

Application filed May 23, 1894. Serial No. 512,223. (No model.)

To all whom it may concern:

Be it known that I, JAMES HENRY, a citizen of the United States, residing at Reading, in the county of Berks and State of Pennsylvania, have invented a new and useful Spring-Hinge, of which the following is a specification.

My invention relates to a double-acting spring hinge, and has for its object to provide an improved hinge in which the actuating spring is concealed and protected and is strained or tightened in the same direction irrespective of the direction of movement of the movable leaf of the hinge.

Further objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claim.

In the drawings, Figure 1 is a side view of a hinge embodying my invention. Fig. 2 is a vertical central section of the same. Fig. 3 is a perspective view showing the parts of the hinge disconnected. Fig. 4 is a plan view.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The hinge comprises essentially the leaves 1 and 2, of which the former carries the twin spaced eyes 3 and the latter the single eye 4, which is equal in width to the interval between the eyes and is adapted to fit therebetween. In addition to these members I employ pintle-members 5 and 6, having enlarged portions which are arranged in contact respectively with the outer sides of the eyes 3 and are provided with diametrically opposite stops or ears to engage shoulders 7, carried respectively, by the leaves of the hinge. The member 5, which is preferably arranged at the upper side of the hinge and is closed to prevent dust from reaching the interior thereof, is preferably provided with fixed stops or ears 8, and the other member 6 which is preferably open at its outer end, is provided with stops or ears 9 consisting of studs or pegs fitted removably in perforations or sockets 10, whereby they are capable of adjustment, for a purpose hereinafter explained.

These pintle members are also provided with

barrels or thimbles 11 and 12, which extend inward or toward each other through the bores of the eyes 3 and into the bore of the eye 4, thus forming a tubular pintle whereby said eyes 3 and 4 are maintained in accurate alignment.

Secured within the bores of the pintle members by means of transverse pins 13, arranged in registering apertures 14 in opposite sides of each member is a coiled spring 15 provided with terminal loops 16 for engagement with these pins.

This being the construction of the improved hinge, the operation thereof is as follows: The tension of the actuating spring causes the opposite stops or ears of one revoluble pintle member to bear against one side of each stop shoulder, and the stops or ears of the other pintle member to bear against the opposite side of each shoulder. Therefore, when the door is swung in one direction, one of the revoluble pintle members is turned therewith, thus tightening the spring, and when the door is swung in the opposite direction, the other revoluble pintle member is turned, again tightening the spring. In this way different members are operated according to the direction of movement of the door from its position of rest, and each member is capable of movement in only one direction, such direction being that which will cause the tightening of the spring. The adjustability of the stops or ears 9 on one of the members enables the tension of the spring to be adjusted as may be required to suit the weight of the door to which the hinge is applied.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

The herein described hinge comprising leaves having registering eyes, a tubular pintle having independently revoluble members, the outer enlarged portions of which bear against the outer sides of the eyes and the reduced portions of which fit within the registering eyes, stops or shoulders 7 on the leaves

contiguous to the eyes, diametrically opposite stops 8 on the upper pintle member to engage the stops or shoulders on the leaves, diametrically opposite adjustable stops on the
5 lower pintle member, said adjustable stops consisting of studs or pegs fitting removably and adjustably in one of a series of transverse perforations in said lower pintle member, a
10 coiled spring arranged in the bore of the pintle, and transverse pins carried respectively

by the pintle members and engaged with the terminals of said spring, substantially as specified.

In testimony that I claim the foregoing as my own I have here affixed my signature in 15 the presence of two witnesses.

JAMES HENRY.

Witnesses:

F. PIERCY HUMMEL,
GEO. KEMP.