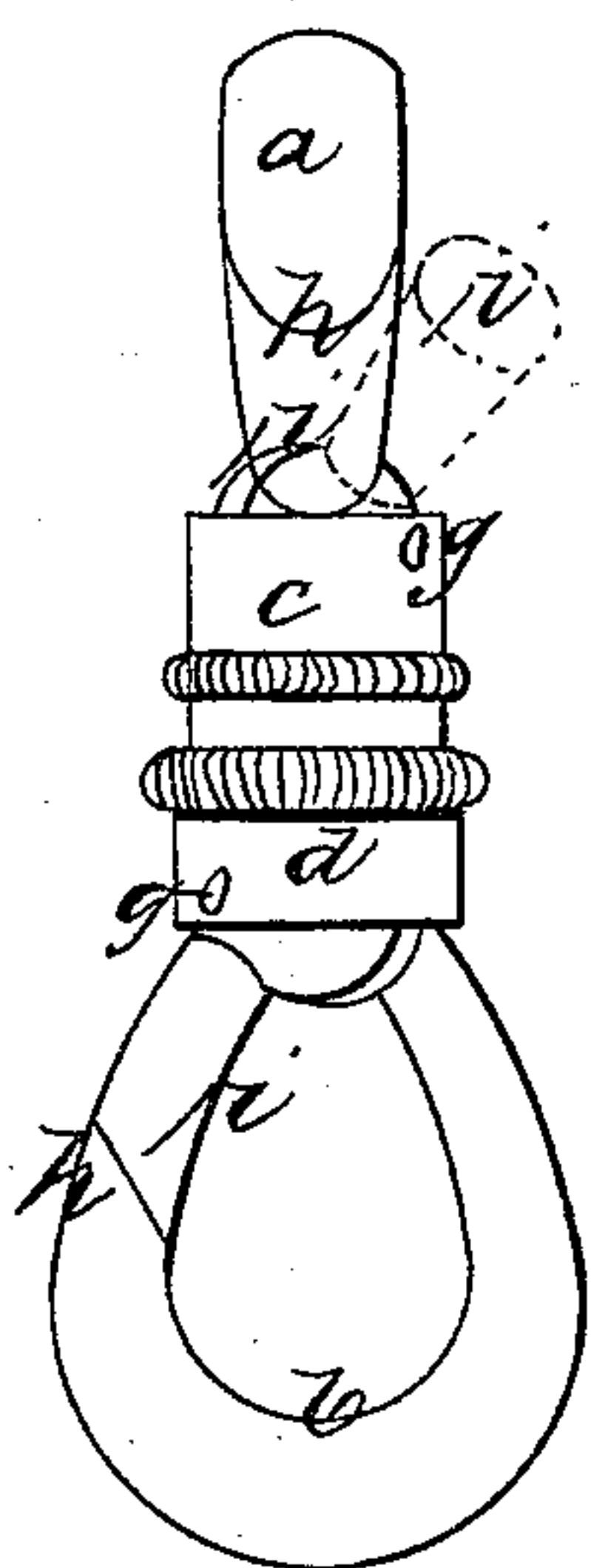


*W. B. Carpenter,*  
*Watch-Chain Attachment.*

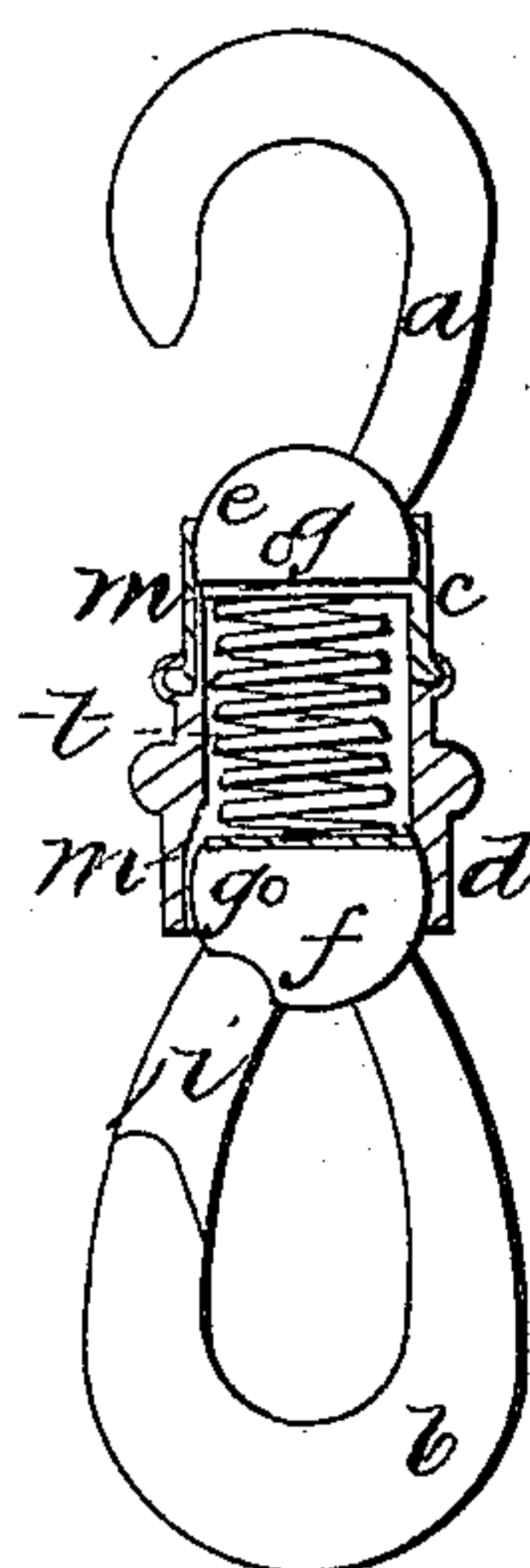
*N<sup>o</sup> 8,965.*

*Patented May 25, 1852.*

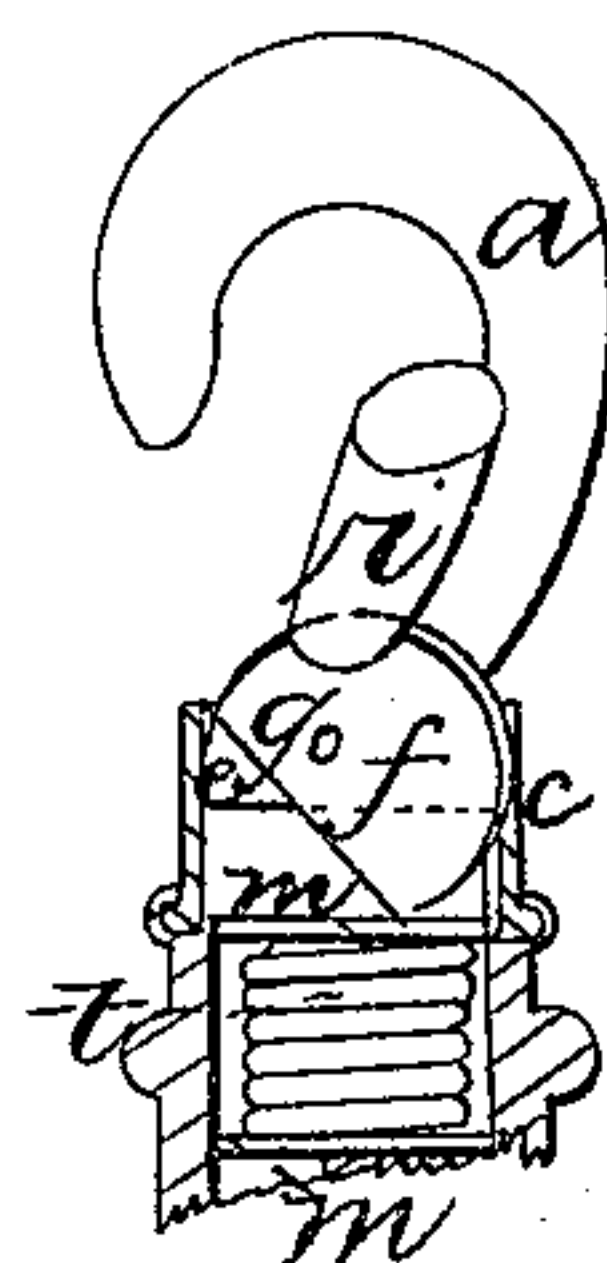
*Fig: 1*



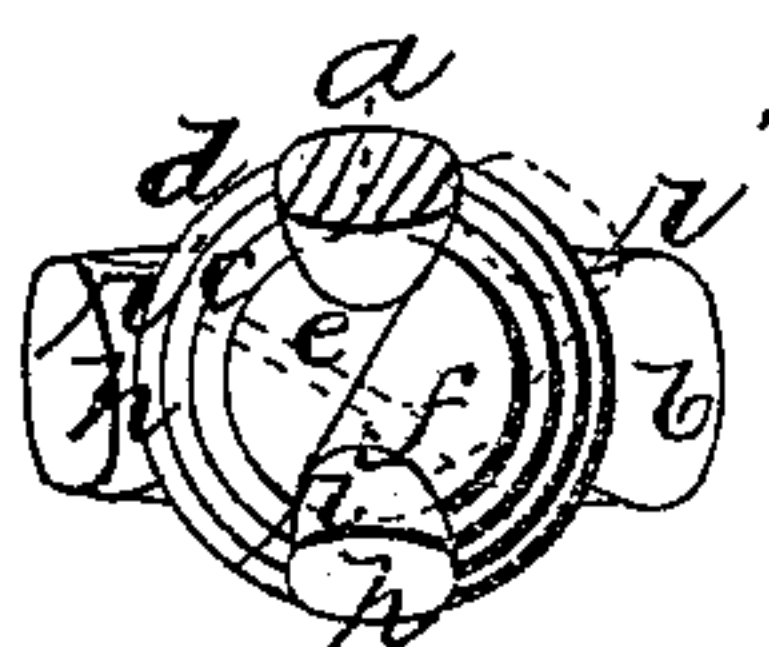
*Fig: 2*



*Fig: 4*



*Fig: 3*





# UNITED STATES PATENT OFFICE.

W. B. CARPENTER, OF NEW YORK, N. Y., ASSIGNOR TO SALISBURY & ARROWSMITH.

## WATCH-CHAIN SWIVEL.

Specification of Letters Patent No. 8,965, dated May 25, 1852.

*To all whom it may concern:*

Be it known that I, W. B. CARPENTER, of the city, county, and State of New York, have invented certain new and useful Improvements in Watch-Swivels, which said improvements are also applicable to swivels employed for various purposes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1, exhibits the external form of one of my improved watch swivels. Fig. 2, exhibits the swivel with the sockets in section, and the opening piece of one hook removed. Fig. 3, is a view looking endwise, the hook which is seen, being represented with part cut away to show the operation of the opening piece. Fig. 4, exhibits part of one socket in section, with one hook entire.

Similar letters of reference indicate corresponding parts in each of the several figures.

The swivel consists of two eyes *a*, *b*, both of similar form, fitted into separate hollow sockets *c*, and *d*. The socket *c*, is fitted within the socket *d*, and is capable of turning around freely, but is prevented from drawing out. The precise manner in which the sockets are fitted together is not material. The eyes are both of precisely similar form, and are made in the following manner, both in one die, or in separate dies. For facilitating the description we will suppose each to be made separately. The hook and opening piece, are made entire in the form of a loop, with a small knob attached, which fits into the end of its socket *c*, or *d*, as the case may be. This knob is in the form of a segment or part of a sphere. It is then sawed or cut obliquely through the knob (see Fig. 3), so as to leave one part *e*, of the knob attached to one side of the loop, and the other *f*, to the other side. The knob is then placed in its socket, and the part *e*, soldered so as to prevent it moving. The socket and knob are then drilled through and a pin *g*, fitted. One side of the loop, viz. that attached to the part *f*, of the knob, which is not soldered to the socket, is cut through at *h*, (see Fig. 1), leaving the hook or principal part *a*, or *b*, attached to the part *e*, of the knob which is fixed in the socket, and the opening piece *i*, attached to the part *f*, which is loose in the socket, and capable of

turning on the pin *g*. The end of the socket may be burred over the knob so as to form a ball and socket joint, if thought desirable. The two parts of the knob form a hinge with the joint oblique to the eye. This obliquity allows the opening piece to open obliquely, as shown at Figs. 1 and 3, instead of straight backward into the hook, and thus gives a much larger opening at *h*, with a slight movement of the hinge than could be obtained with the opening piece moving straight into or from the hook. This is an advantage inasmuch as the watch or chain can be more conveniently and quickly attached and the wear will be slighter.

Within the sockets of the two eyes of the swivel, which are both open, there is placed a spiral spring *l*, which is compressed between two small loose plates or disks *m*, *m*, which each bear upon the back of one of the opening pieces, that is to say, upon the back of the piece *f*. In the drawing, an inner socket or tube is shown attached to the outer socket *d*, and this inner socket or tube is intended to fit within the socket *c*, and receive the spring. The swivel may however be made without this inner tube. The spring *l*, has a tendency to keep the opening pieces of both hooks closed, by reason of its making the plates tend to keep the backs of *f*, level with the backs of the pieces *e*, but it yields as shown in Fig. 4, when the opening piece is pressed back, closing the hook when the pressure is removed. The spring *l*, being placed within the socket, makes the swivel much more neat, compact, and pretty in its appearance than when a spring is placed inside the eye, pressing upon the opening piece in the usual way, while it allows the eyes to be made much smaller, as no room is occupied within them. It is also less likely to get out of order. It is more convenient than the swivel in which the opening piece is secured by a nut working on the shank of the eyes. It is applicable to a single or double eyed swivel.

What I claim as my invention and desire to secure by Letters Patent, is—

Making the joint of the opening piece *i*, oblique to the eye, so that it will open obliquely to the hook piece *a*, or *b*, in the manner and for the purpose herein set forth.

WM. B. CARPENTER.

Witnesses:

O. D. MUNN,  
S. H. WALES.