

(No Model.)

S. W. GRAYBILL.

LINK.

No. 371,935.

Patented Oct. 25, 1887.

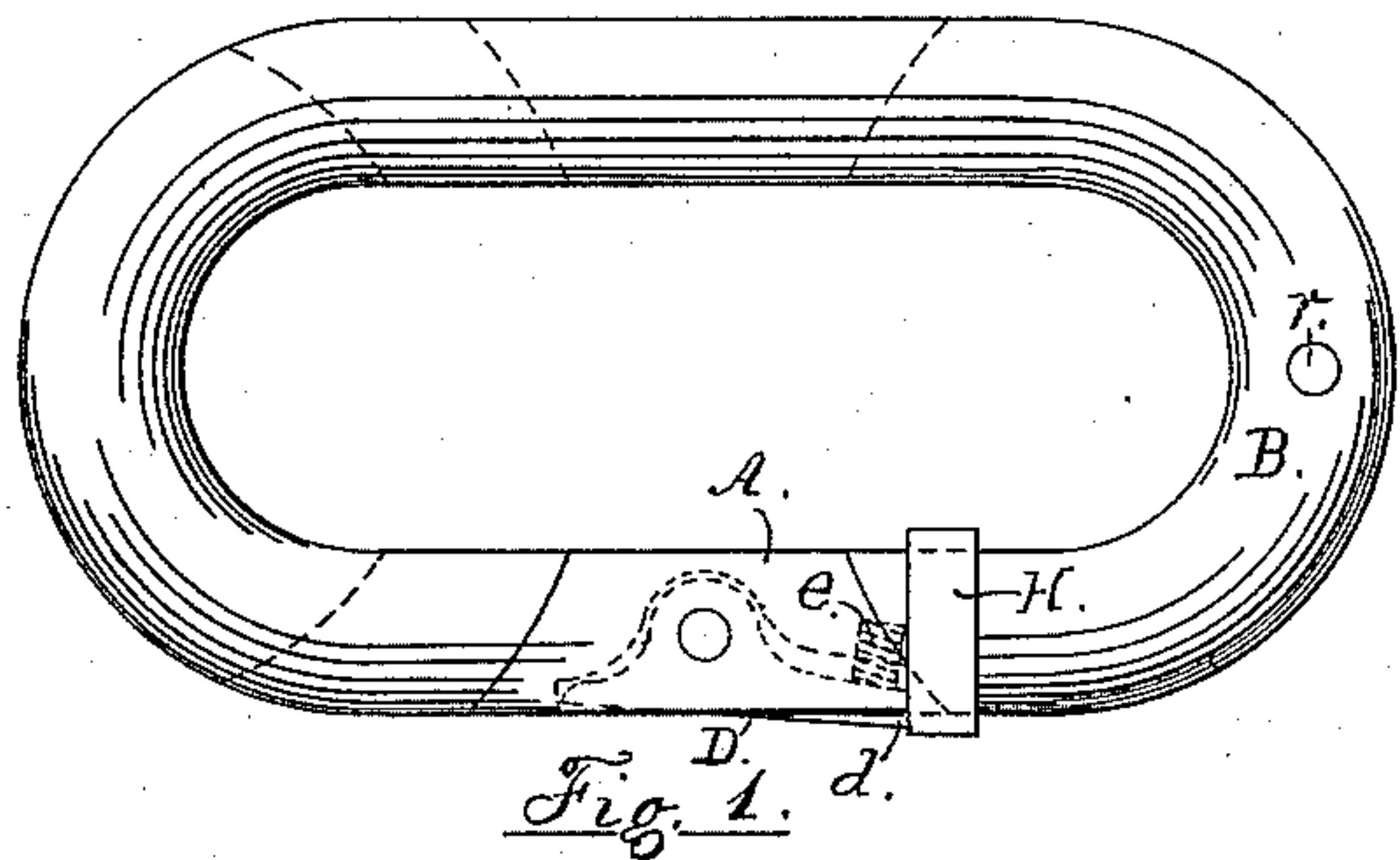


Fig. 1.

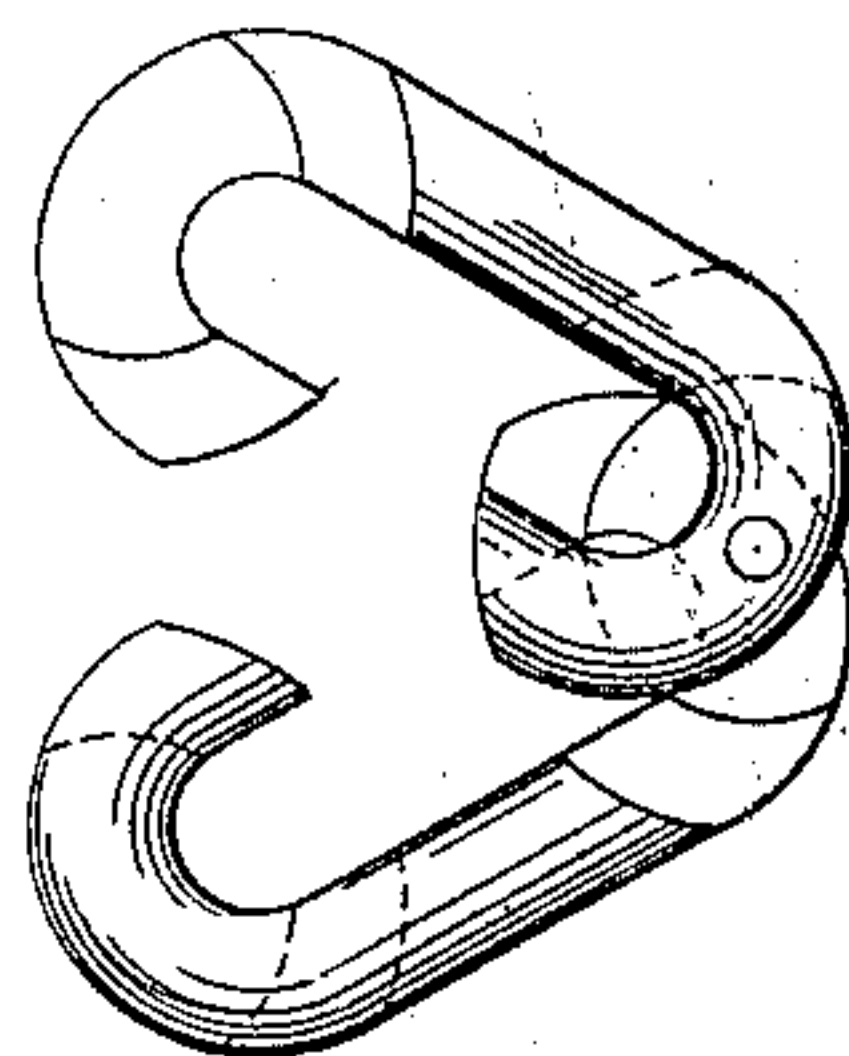


Fig. 4.

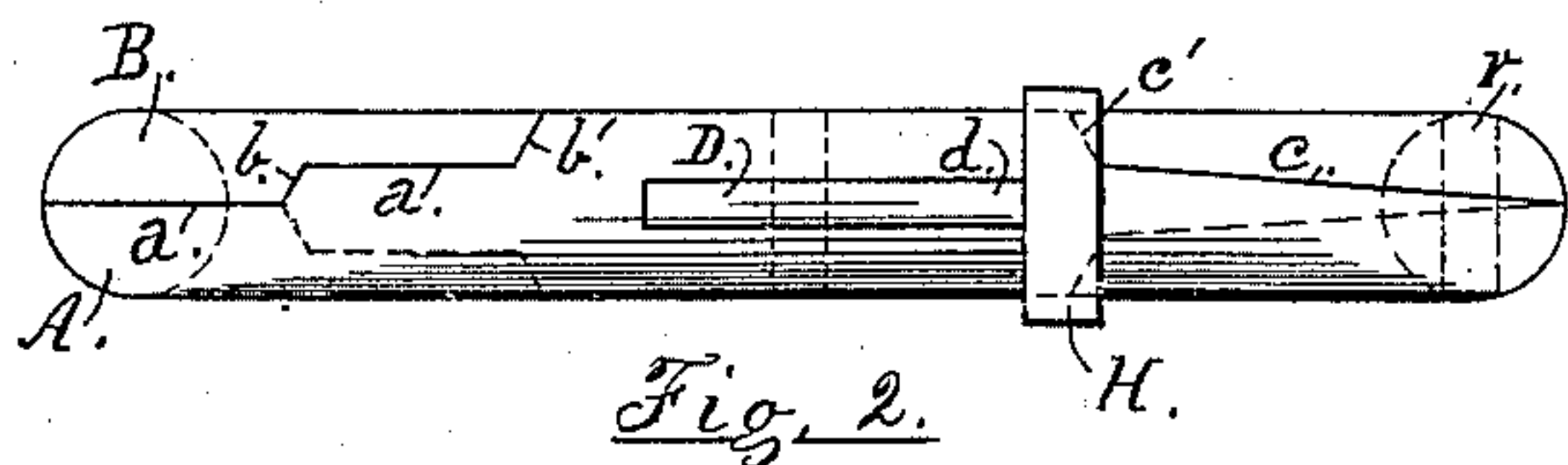


Fig. 2.



Fig. 5.

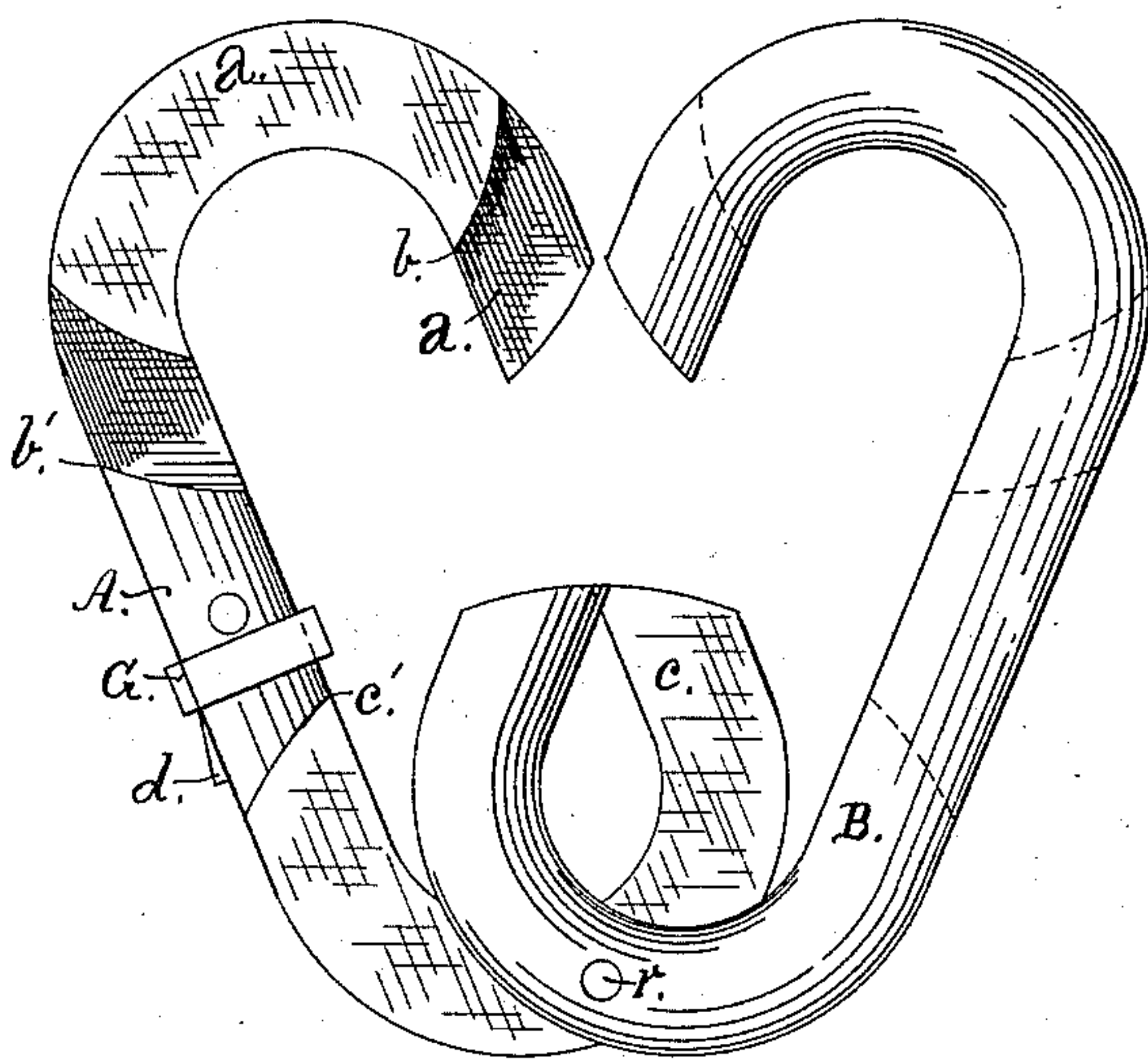


Fig. 3.

Witnesses

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LINK.

SPECIFICATION forming part of Letters Patent No. 371,935, dated October 25, 1887.

Application filed March 12, 1887. Serial No. 230,657. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL W. GRAYBILL, a citizen of the United States, residing at Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain Improvements in Links, of which the following is a specification.

My invention relates to improvements in links formed of two sections pivoted together, so that when they are closed the ends of the one lap or engage the ends of the other; and it consists in the construction and combination of the various parts, hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a top view of one of my links with the shoulders and slopes cut away on the same side at both ends of each section, and with the locking-collar in place to prevent the opening of said sections; Fig. 2, a side view of the same, and Fig. 3 a top view with the sections open to engage a solid link. Fig. 4 is a top view of a link in which the shoulders are cut in on opposite sides of the same section, the sections being shown as open, and Fig. 5 a side view of the same closed.

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

In the illustration of the links composed of the two G-shaped sections A and B, pivoted at *r* and lapping each other, as shown in Figs. 1, 2, and 3, I have presented two methods of construction to which my catch D, to be hereinafter explained, is applicable. In these three figures a reduction in the thickness of the metal is made on the same face of both ends of a section. At one end of each section it is made by a series of plane surfaces, *a a*, connected by steps *b b'*, extending from the outer and thinnest extremity, *a*, of the end curve to the other or inner, where the full thickness of the link is reached by the last step, *b'*. The same result is obtained at the other end of each section by a plane slope, *c*, beginning at the outer and thin end of the curve and extending around to where said end curve joins the straighter portion or body of the link, where it attains the full thickness of said link by the short shoulder *c'*, similar to *b'*. The sections when pivoted together are so placed that each part of one section engages the correspondingly-cut part of the other.

As explained, the two ends of each section

show different methods of lapping. If preferred, either method may be used at both ends of each section—that is to say, both ends of each section may be prepared by cutting away the metal in a series of planes and steps, or by cutting a long plane and short shoulder.

Another method, illustrated in Figs. 4 and 5, varies from those just described simply in the faces cut, no difference being made in the manner of cutting. In it a section is cut away for lapping at each end, but on different sides of the section, so that were a link in a horizontal position the cutting away would be done on the under side of one end of the lower section and on the upper side of the other end. The top section would be cut away on the top of the end intended to fit into the under-cut of the lower section and the other end the reverse.

I prevent the accidental opening of the links by means of a catch, D, pivoted in a recess in the center of one side of a section, with an end, *d*, thrown out somewhat beyond the face of the side by a spring, *e*, seated in the recess under that end of the catch. This part of the link is encircled by a movable collar, H, which, when the link is open, is located back of the catch, as shown at G, and when the sections are closed it is forced over the catch, so as to engage the end of the section lapping that in which the said catch is pivoted. In moving the collar forward that it may engage both sections the force applied to it presses the end *d* of the catch down to permit it to pass. This end *d* of the catch is long enough to prevent the collar from slipping back so far as to become disengaged from the lapping end of the other section. To open the sections, the spring is pressed inward and the collar moved back of it.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a link formed of two sections pivoted together, the combination of the catch pivoted in the body of one section with the sliding collar for keeping the two sections from disengaging, substantially as specified.

SAMUEL W. GRAYBILL.

Witnesses:

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