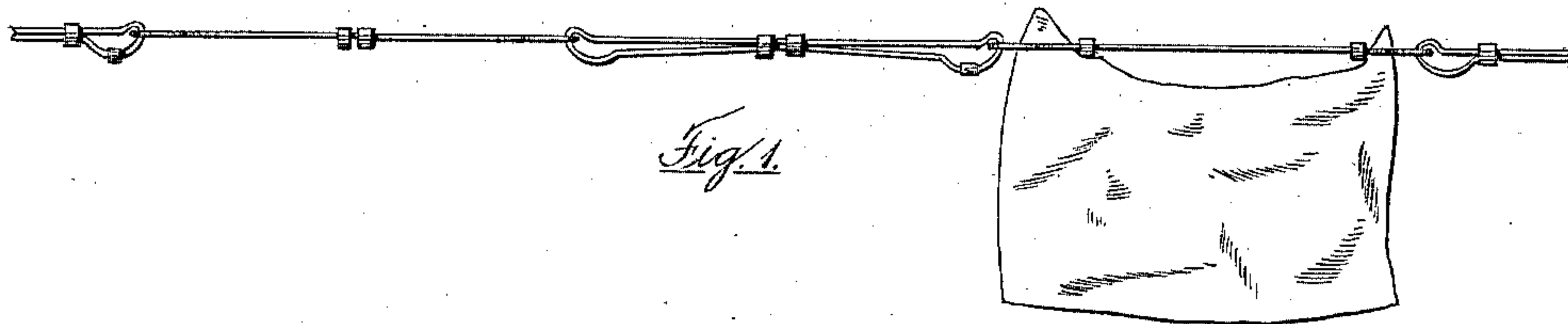


(No Model.)

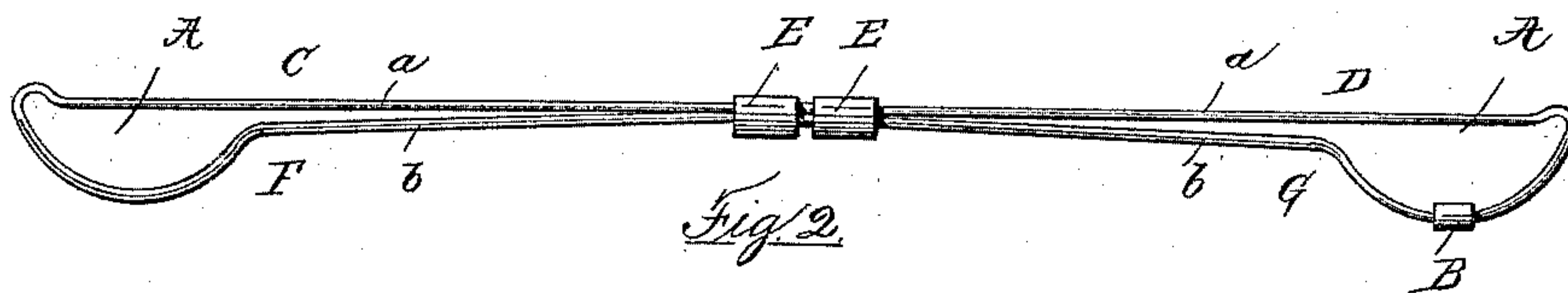
H. E. PERCIVAL.  
CLOTHES LINE.

No. 446,007.

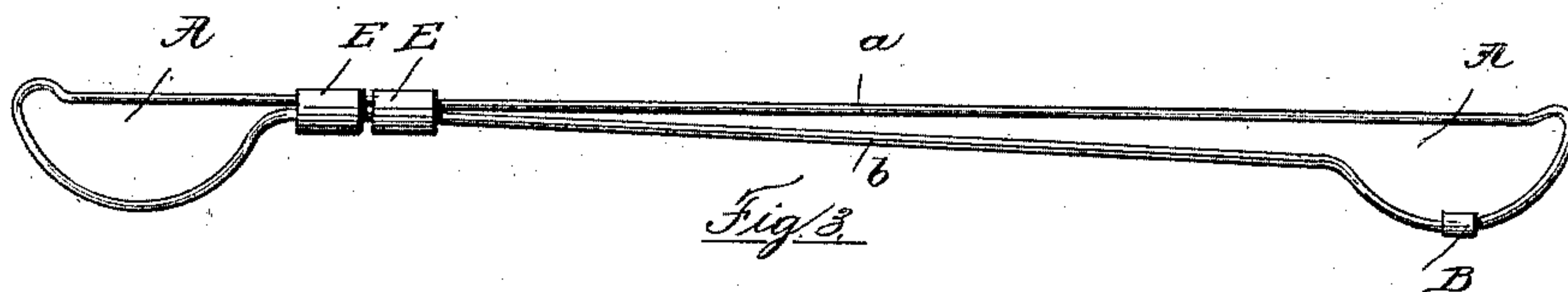
Patented Feb. 10, 1891.



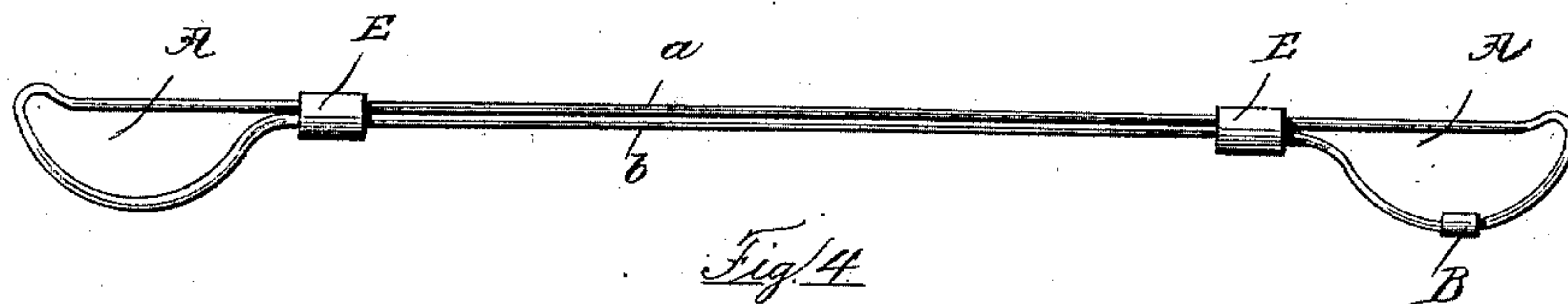
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Fig. 4.*

Witnesses  
Walter S. Brown  
& Corwin

Inventor  
Herbert E. Percival

By his Attorney.

Rufus B. Fowler

# UNITED STATES PATENT OFFICE.

HERBERT E. PERCIVAL, OF OKLAHOMA, OKLAHOMA TERRITORY, ASSIGNOR  
TO EDMUND CONVERSE, OF WORCESTER, MASSACHUSETTS.

## CLOTHES-LINE.

SPECIFICATION forming part of Letters Patent No. 446,007, dated February 10, 1891.

Application filed March 29, 1890. Serial No. 345,906. (No model.)

*To all whom it may concern:*

Be it known that I, HERBERT E. PERCIVAL, a citizen of the United States, and a resident of Oklahoma City, in the Indian Territory, have invented a new and useful Improvement in Clothes-Lines, of which the following is a specification, reference being had to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 represents a section of a clothes-line, showing the method of attaching the clothing thereto. Fig. 2 represents one of the links forming the chain with the sliding jaw-compressing rings placed in the center of the link. Figs. 3 and 4 represent a link of the chain of which the line is composed, but with the sliding rings both at one end of the holding-jaws and with a ring at each end of the holding-jaws, respectively.

Similar letters refer to similar parts in the different figures.

My present invention relates to certain improvements in the clothes-line forming the subject of the Letters Patent granted to me on the 10th day of December, 1889, No. 416,854, to which reference is herein made.

The clothes-line forming the subject of my present invention consists of a chain composed of a series of links formed of elastic wire, which is bent into a link having openings or apertures A A, through which the corner or a section of the clothing is passed, and also having wires arranged parallel to each other, forming holding-jaws, between which the clothing is drawn and by which it is sustained. In these respects it is similar to the clothes-line described in the Letters Patent above referred to. In that patent, however, the parallel wires were fastened together in the center of the link, thereby forming in each link two pairs of holding-jaws, one upon each side of the center, the clothing being drawn into the space between one pair of jaws from one of the openings at one end of the link and into the space between the other pair of holding-jaws from the opening at the opposite end of the link, the length of each of the holding-jaws being fixed and determined by the distance between the opening at the end of the link and the central fastening of the two parallel wires.

The form of the links in the clothes-line hereinafter described and represented in the accompanying drawings is similar to the form of the links forming the lines described in the patent above referred to; but in my present form of improved line I do not fasten the parallel wires at the center of the link, nor are the ends of the wire of which the link is made caused to meet at the center of the link, as represented in Fig. 2 of the drawings, forming a part of the Letters Patent No. 416,854. The ends of the wire forming the link are caused to meet at one of the openings, preferably at the center of the opening, and they are united by a sleeve B, which is soldered to the ends of the wires. This leaves the space between the openings A A free from any joint or union of the ends of the wire. To the parallel wires and between the inner ends of the openings A A, I apply one or more sliding rings E E, two being shown in the drawings. Each of these rings has a hole through it of the size of the combined rods or wires *a b* between the points C D, so that the wires *a b* are closely held together, as they are inclosed in the rings E E. The rings are capable of sliding freely from one end to the other of the space between C and D. The rings can be placed in the center of the link, as shown in Fig. 2, forming of the parallel wires *a* and *b* two distinct sets of holding-jaws F and G. The rings can be placed both at the same end of the parallel wires, as shown in Fig. 3, thereby forming one long jaw extending from the rings E E to the opening at the opposite end of the link. Thus the length of the holding-jaws can be varied, as will be obvious, and in case it is required to pinch the parallel wires forming the holding-jaws closely together close to the openings or apertures, and thereby reduce the elasticity of the jaws by reducing their length, it is accomplished by sliding the rings E E close up against the openings, as represented in Fig. 4.

I do not confine myself to the precise form of openings or even to the precise form or method of bending the wire to form a link, as such can be greatly modified without departing from the essential feature of my invention.

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



1. A clothes-line composed of a series of links linked together in the form of a chain, each of said links having openings at its ends, through which the clothing to be held is  
5 passed, and having said open portions of the link connected by two parallel wires, and a sliding ring placed upon said parallel wires, by which they are held together, substantially as described.

10 2. A clothes-line provided with longitudinal parallel wires forming the holding-jaws be-

tween which the clothing is seized, and a ring placed upon said parallel longitudinal wires and capable of sliding thereon, whereby the wires are pinched closely together, as and for 15 the purpose specified.

Dated at Oklahoma City, Indian Territory, this 5th day of February, 1890.

HERBERT E. PERCIVAL.

Witnesses:

H. H. HOWARD,

D. HOLLINGSWORTH.