

(No Model.)

E. S. JENNINGS.  
DRIVE CHAIN.

No. 414,416.

Patented Nov. 5, 1889.

Fig. 1.

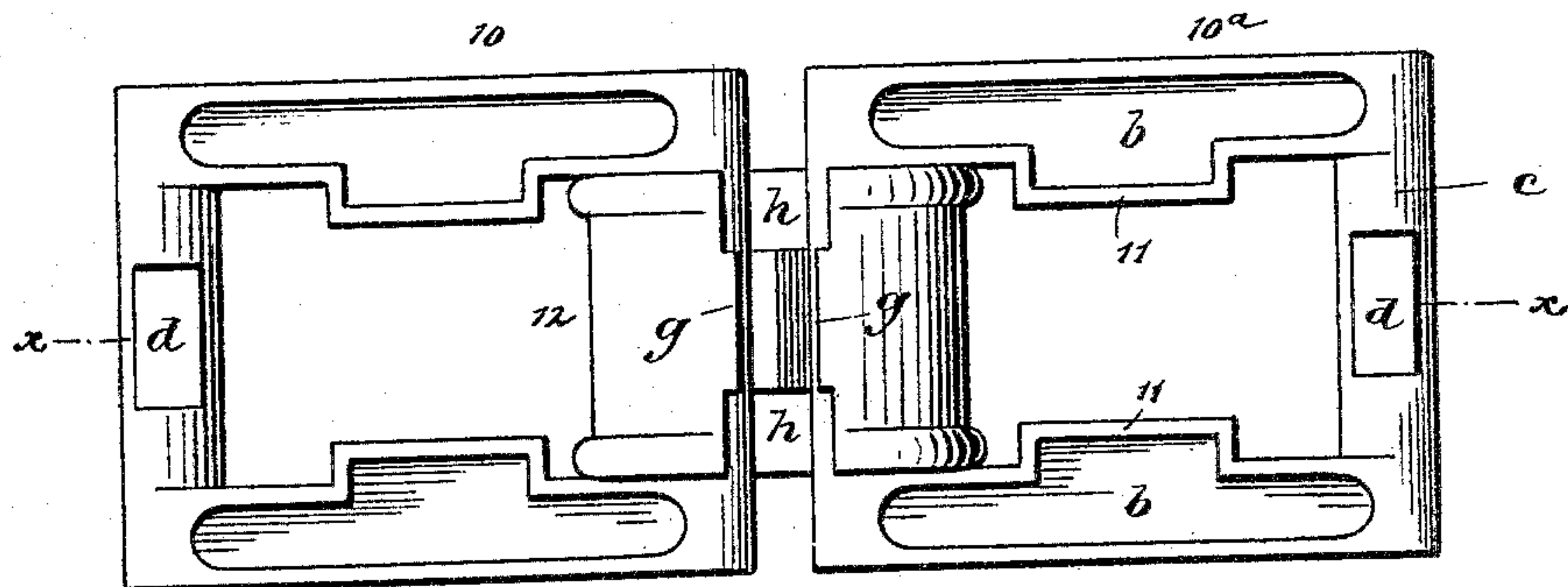


Fig. 2.

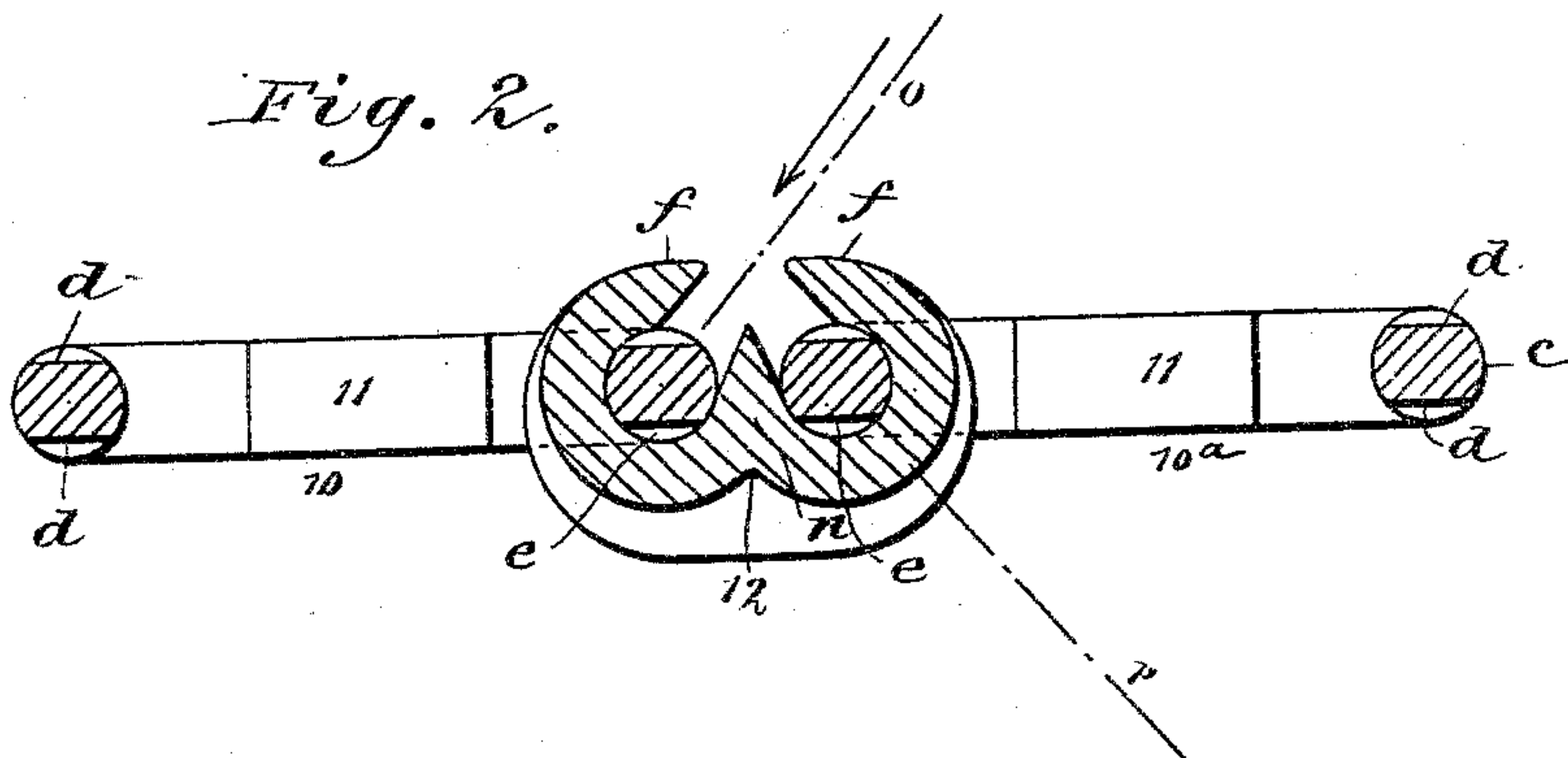


Fig. 3.

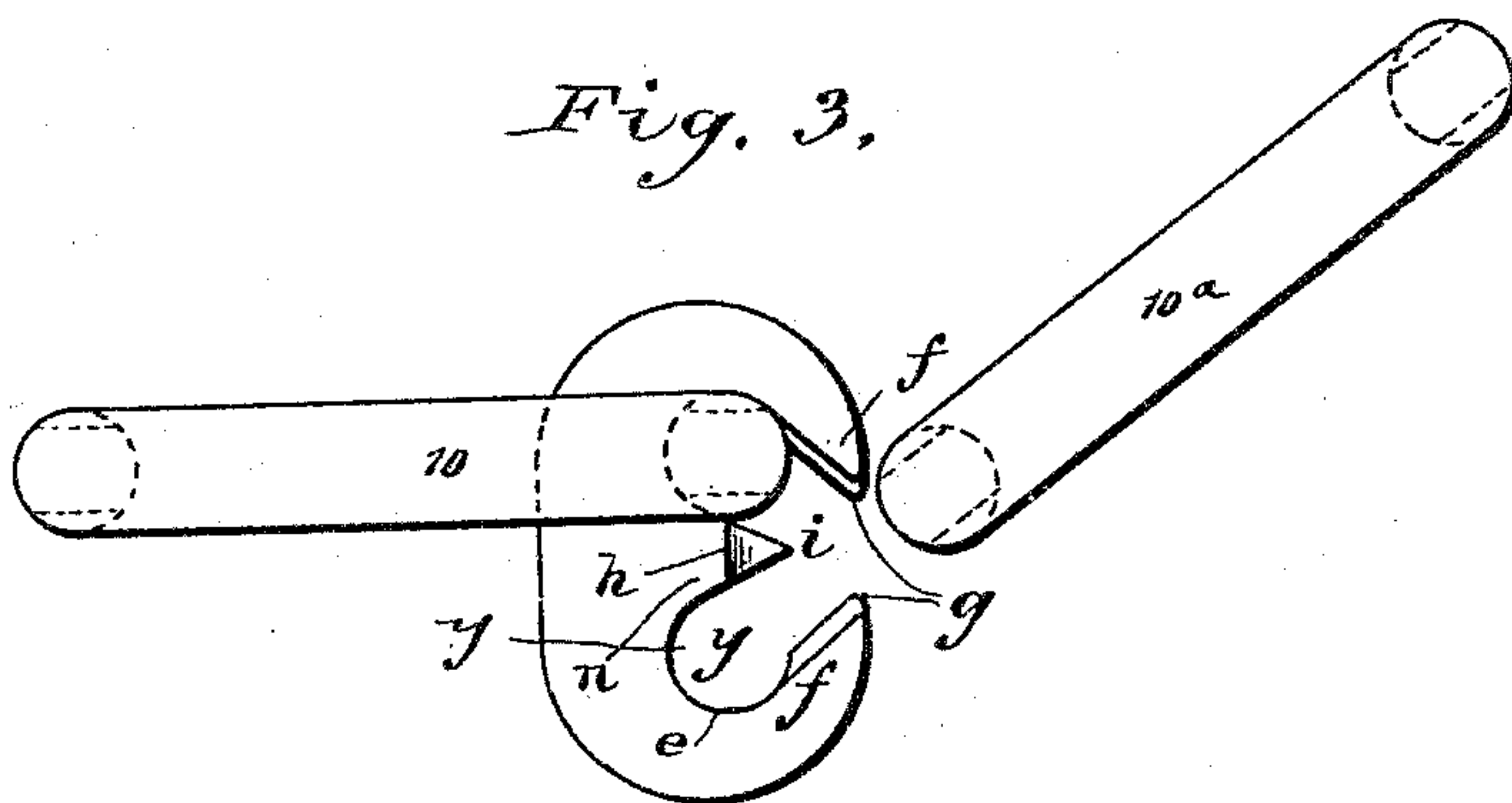
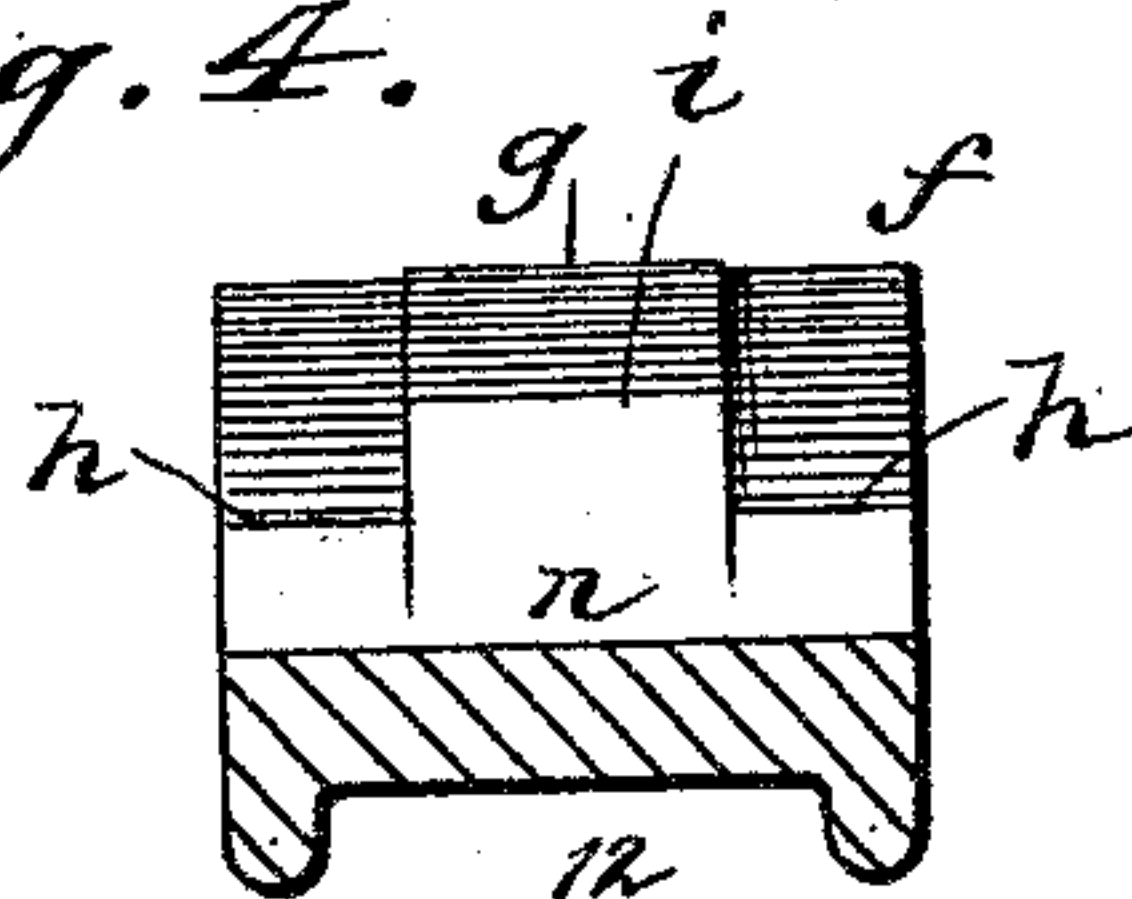


Fig. 4.



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# UNITED STATES PATENT OFFICE.

EBENEZER S. JENNINGS, OF NELSONVILLE, OHIO, ASSIGNOR TO THE NELSONVILLE FOUNDRY AND MACHINE COMPANY, OF SAME PLACE.

## DRIVE-CHAIN.

SPECIFICATION forming part of Letters Patent No. 414,416, dated November 5, 1889.

Application filed May 3, 1889. Serial No. 309,439. (No model.)

*To all whom it may concern:*

Be it known that I, EBENEZER S. JENNINGS, of Nelsonville, in the county of Athens and State of Ohio, have invented a new and Improved Chain Belt, of which the following is a full, clear, and exact description.

This invention relates to chain belts of the class wherein the several links constituting the belt are held from accidental displacement, and can be separated only by purposely moving the parts to an abnormal position, which the force of gravity would prevent the links or parts of the belt from assuming without the application of a properly directing power.

The invention consists, essentially, of a link of novel construction combined with a coupler adapted to connect two adjacent links, the parts being constructed and arranged in a manner to be hereinafter described, and specifically pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of a section of a belt embodying my invention. Fig. 2 is a longitudinal sectional view on line *x x*, Fig. 1. Fig. 3 is a side view of a portion of the chain, representing the parts as they would appear when the links were to be coupled; and Fig. 4 is a sectional detail view on line *y y* of Fig. 3.

In the drawings, 10 and 10<sup>a</sup> represent links, wherein the side lengths *b* are formed with inwardly-extending projections 11, while the end bars *c* are centrally flattened to form recesses *d*. All the links of the chain belt are constructed in the manner above described. In order that the links may be connected, I provide a coupling-block 12, formed with two circular recesses *e* and with jaws *f*, which overhang the recesses and are formed with projections *g*. The central rib *n*, by which the recesses *e* are divided, is formed with shoulders *h*, between which there is an upwardly-extending projection *i*.

In connecting the links and the coupler the link upon the left of the coupler is adjusted to about the angle indicated by the dotted line marked *o* in Fig. 2, and, being so adjusted, the projection *g* of the overhanging jaw *f* will register with one of the link-recesses *d*,

the other link-recess registering with the coupler projection *i*, and this register of the parts being brought about the link may be slipped downward in the direction of the arrow shown in Fig. 2, until the right-hand cross-bar of the link rests within the left-hand coupler-recess *e*. Then the link may be turned over into the position in which it is shown in Fig. 2. The second link is connected in a similar manner, and the links having been so connected they can only be disconnected by turning one of the links up over the coupler until its recesses *d* register with the coupler projections *g* and *i*, or the coupler be turned down to the position in which it is shown in Fig. 3, to bring about the desired register.

The link projections 11 prevent the uncoupling of the parts should the links move to the position indicated by the dotted line *p* in Fig. 2, as any upward movement of the links after they have been moved to this position would bring said projections 11 to bear upon the coupler, and all further upward movement of the link would be prevented.

But very little slack is required to uncouple a chain constructed as above set forth, and the chain is withal exceedingly flexible. A chain as above constructed could be used as a driving-chain, a conveyer-chain, an elevator-chain, or in any other desired way.

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

1. The combination, with links 10 and 10<sup>a</sup>, formed with recesses *d*, of a coupler formed with recesses *e*, a central rib *n*, and overhanging jaws *f*, having projections *g*, substantially as described.

2. The combination, with the links 10 and 10<sup>a</sup>, formed with the recesses *d*, of a coupler formed with the recesses *e*, the jaws *f*, having projections *g*, and the central rib *n*, having the projection *i*, substantially as described.

3. The combination, with links formed with projections 11 and recesses *d*, of a coupler formed with recesses *e*, a central rib *n*, having a projection *i*, and jaws *f*, which overhang the recesses and are formed with projections *g*, substantially as described.

EBENEZER S. JENNINGS.

Witnesses:

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CHAS. A. CABLE.