

(Model.)

E. L. HOWE.

DRIVE CHAIN.

No. 255,994.

Patented Apr. 4, 1882.

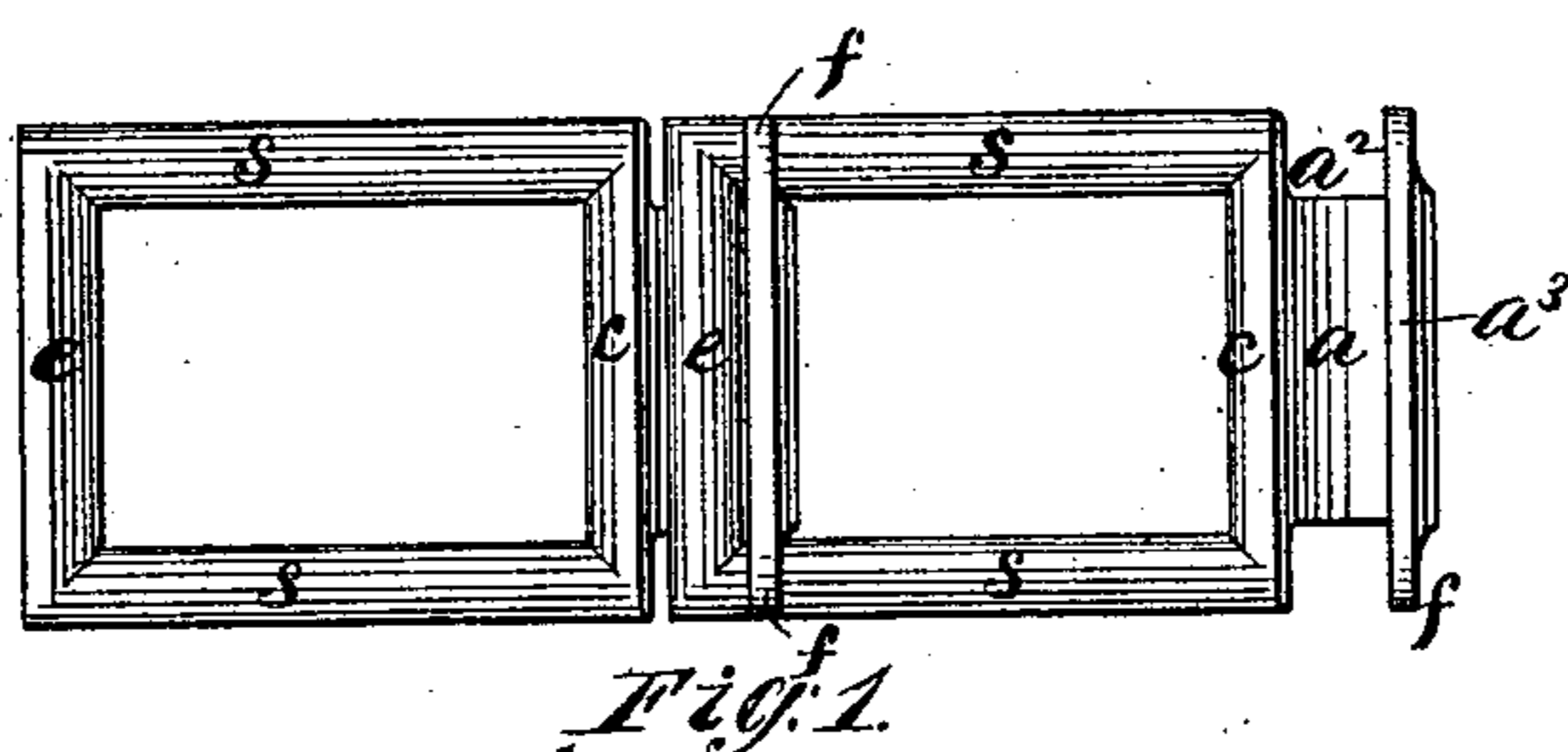


Fig. 1.

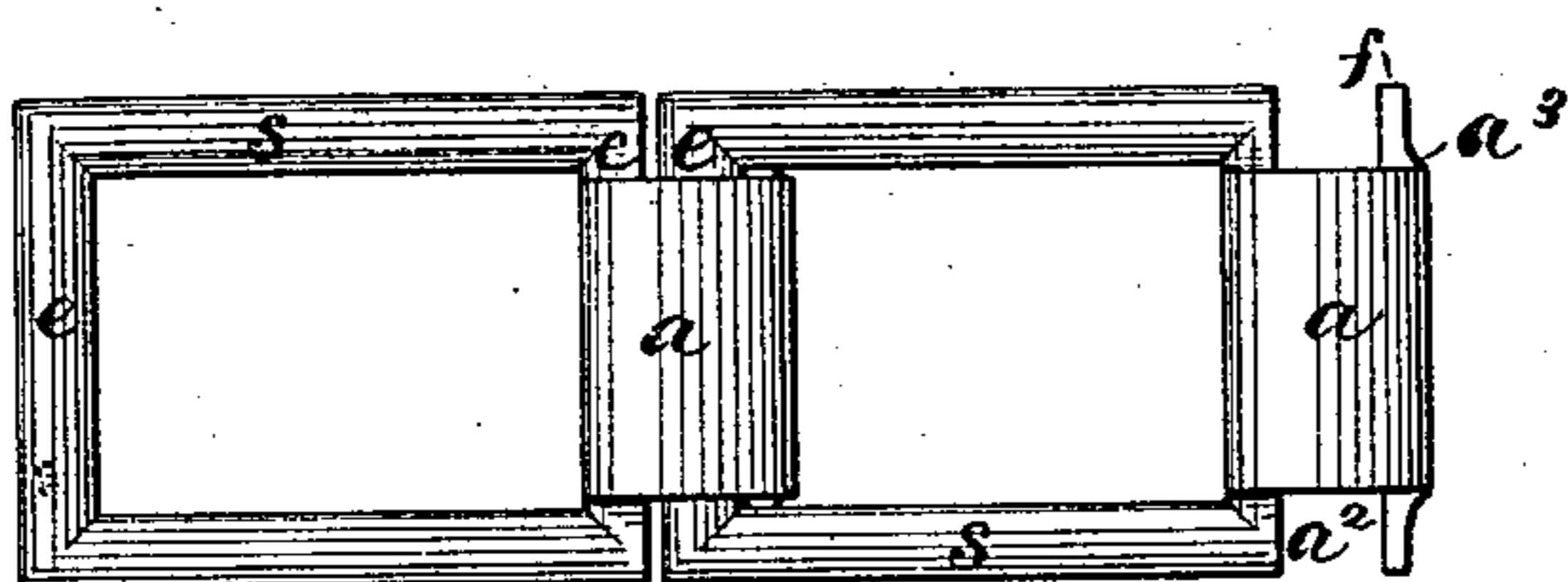


Fig. 2.

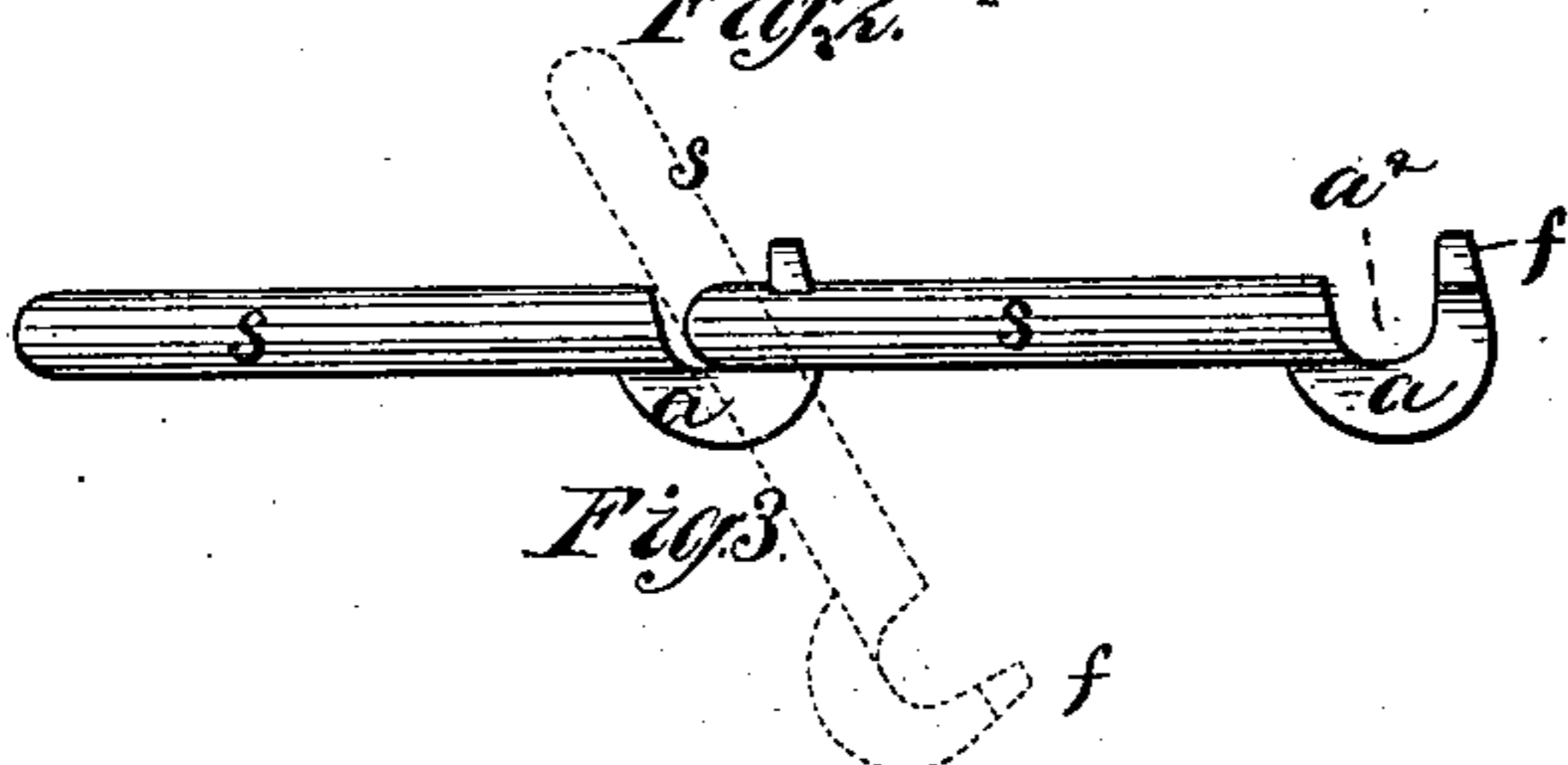


Fig. 3.

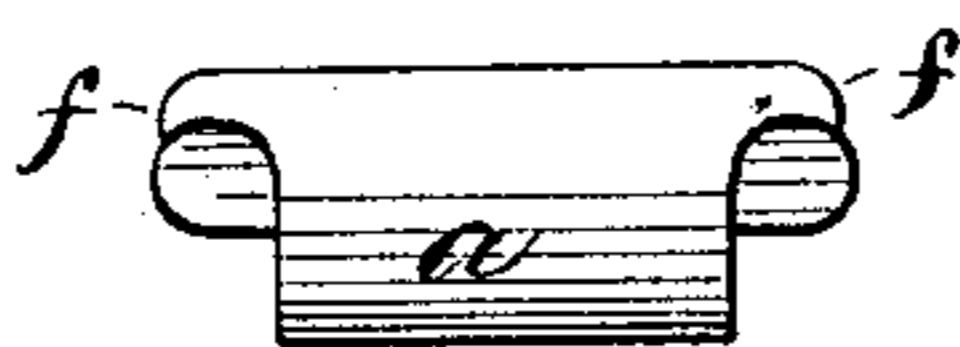


Fig. 4.

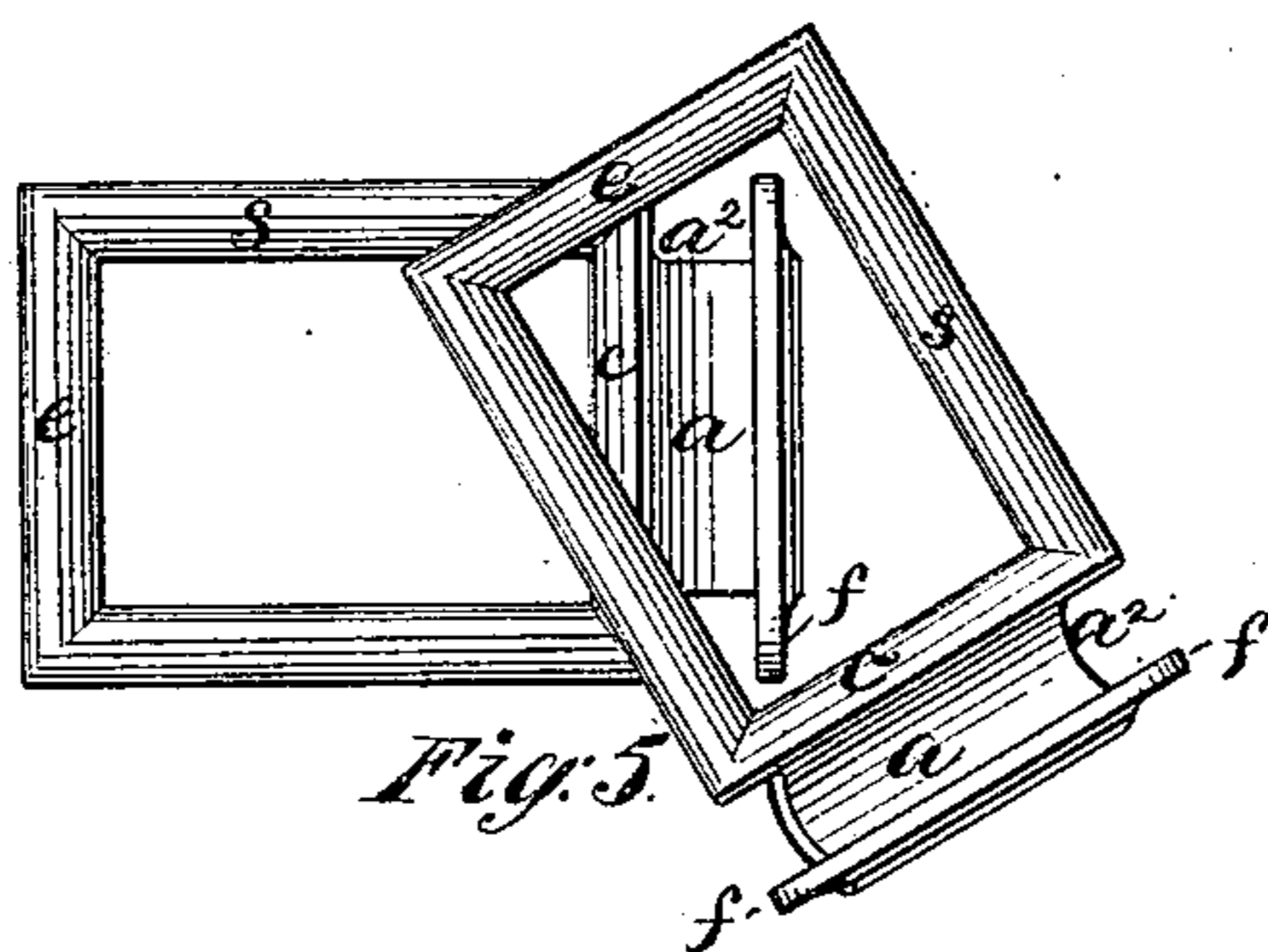


Fig. 5.

Witnesses;

C. C. Perkins.
Jacob Feltner.

Inventor;
Eugene L. Howe
per atty.

J. N. McIntire

UNITED STATES PATENT OFFICE.

EUGENE L. HOWE, OF CHICAGO, ILLINOIS.

DRIVE-CHAIN.

SPECIFICATION forming part of Letters Patent No. 255,994, dated April 4, 1882.

Application filed January 30, 1882. (Model.)

To all whom it may concern:

Be it known that I, EUGENE L. HOWE, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful
5 Improvements in Drive-Chains; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this application.

10 My invention relates to that kind of drive-chains known as "detachable" chains—that is, chains the links of which are coupled together by such means that, while they are hinged together and not liable to separation
15 while in working relative positions, they may be easily uncoupled when turned into an unusual relative position.

Previous to my invention this kind of chains has been made in various forms, in most of
20 which a coupling-hook has been used on one end of the link, but with a throat or opening of less width (either all along or at some point) than the thickness of the end bar at the other, and with the size of either the end bar or side
25 bar reduced at some point to adapt the end or side bar to pass through the throat of the hook when the coupled links should be turned into an unusual relative position.

I propose to provide for use a detachable
30 chain made of duplicate links, each of which, while it has an open hook or coupler at one end, shall have no part of either its side or end bars reduced in size, and shall have the coupler-hook throat wider at all points than
35 the full size of the end or side bars, and yet have the chain parts capable of easy separation only when turned out of a working relative position.

To this end and object my invention consists primarily in a chain-link composed of two
40 side and two end bars, from one of which latter projects a sort of C-shaped coupler-hook, the opening or throat of which is slightly wider throughout its length than the greatest thickness or diameter of the other end bar of the
45 link, the lip of said coupler-hook being extended endwise of the coupler in such manner as to project over the side bars of a link engaged with said coupler, all as will be presently more

fully explained; and my invention further consists in a chain produced by the combination, as hereinafter explained, of a series of such improved links.

To enable those skilled in the art to make and use my invention, I will now proceed to
55 more fully explain the same, referring by letters to the accompanying drawings, in which—

Figure 1 is a plan or face view of a chain made of my novel form of links. Fig. 2 is a plan view of the opposite side or face of the
60 chain. Fig. 3 is an edge view of the same; Fig. 4, an end view; and Fig. 5, a perspective view, showing the relative movement to which the links must be subjected to uncouple them.

In the several figures the same part will be
65 found designated by the same letters of reference.

s s are the side bars of the link; *e*, one end bar and *c* the other, from which latter extends the open coupler-hook or socket *a*, that, as
70 usual, is cast integral with this end of the link.

The coupler-hook *a* is formed with a throat or opening, which, as shown at *a*², is slightly wider throughout its entire length than the
75 end bar, *e*, which (of another link) is to be accommodated in said coupler, and it has its lip-like portion *a*³ not only extended somewhat farther upward, but has the lip projected at
80 each end over the side bars of the link coupled to said hook, all as clearly shown. The portions of the coupler-lip that project thus over the side bars of the other link I have lettered
85 *ff*. These portions *ff*, it will be seen, operate to hold the link coupled to hook *a* in place and prevent said link from becoming disengaged therefrom, except in a particular manner.

To uncouple any two links it is necessary to first turn them into the relative position indicated by the dotted lines of one link at Fig. 3, and to then move the turned link bodily into
90 about the position relatively to the other link, seen at Fig. 5. In the condition of the parts illustrated at Fig. 5 the lip-like portion of the coupler, (which is about equal to the extreme width of the link,) having assumed a position
95 about diagonal to the rectangular central opening of the other link, may be moved bodily through said opening, and the two links be

thus cleared of each other. By a reverse movement or manipulation of course the parts may be recoupled.

What I claim as new, and desire to secure
5 by Letters Patent, is—

1. A chain-link having plain side and end bars and formed with an open coupler-hook at one end, the throat of which is slightly wider throughout its length than the bar at the opposite end of the link is thick, and the lip of
10 which has extensions *ff*, adapted to overlap the side bars of a link engaged with said coupler, all substantially as and for the purpose set forth.

2. A chain composed of duplicate links, each 15 of which has a plain bar at one end and an open coupler-hook, *a*, at the other, the said coupler-hook being formed with projections at *ff*, and the links being combined and operating in the manner described. 20

In witness whereof I have hereunto set my hand this 3d day of January, 1882.

EUGENE L. HOWE.

In presence of—

J. M. DODGE,
GLENN G. HOWE.