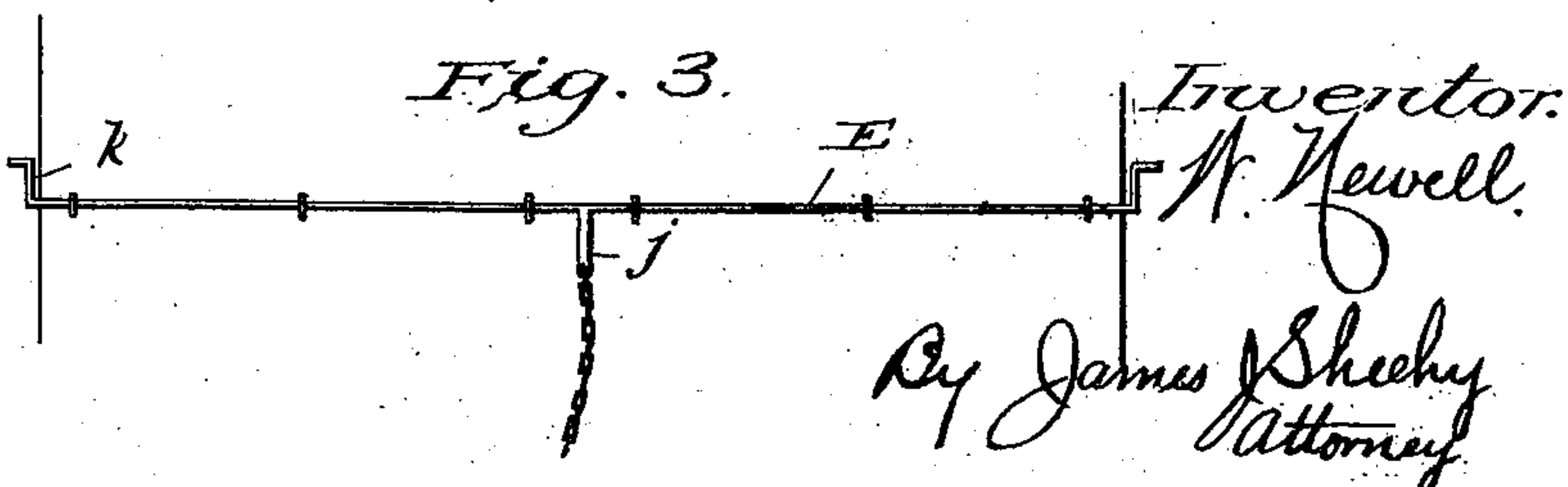
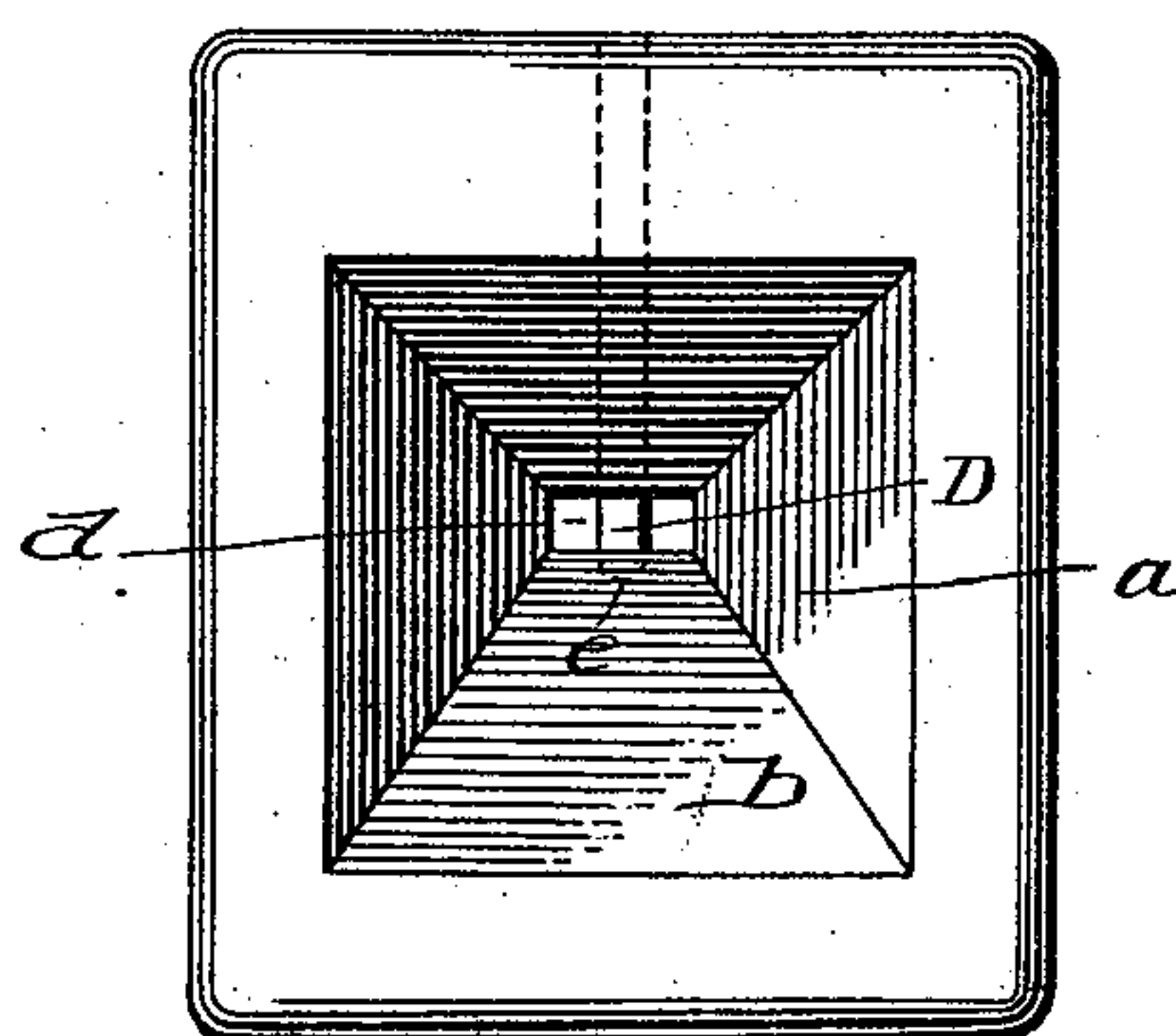
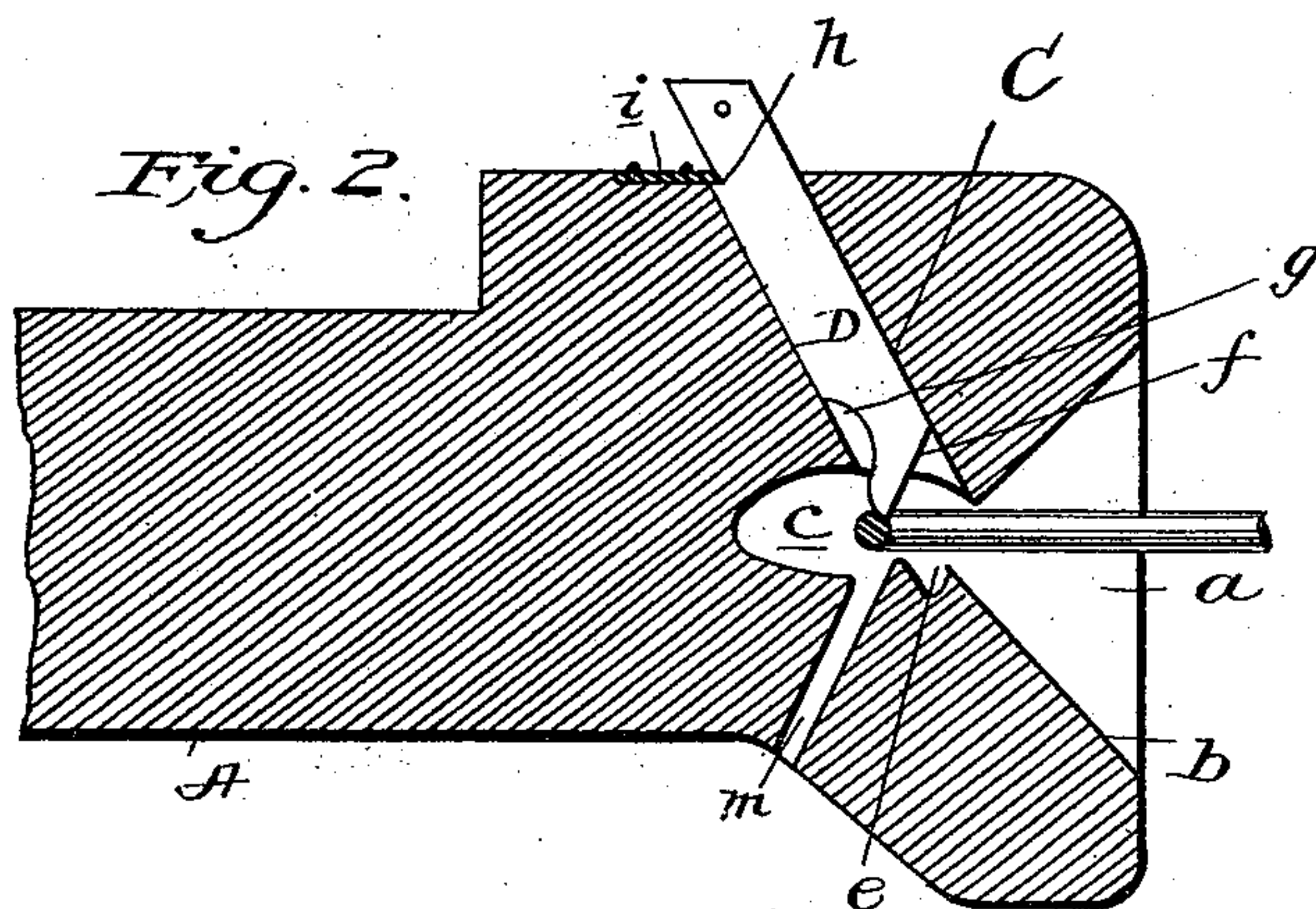
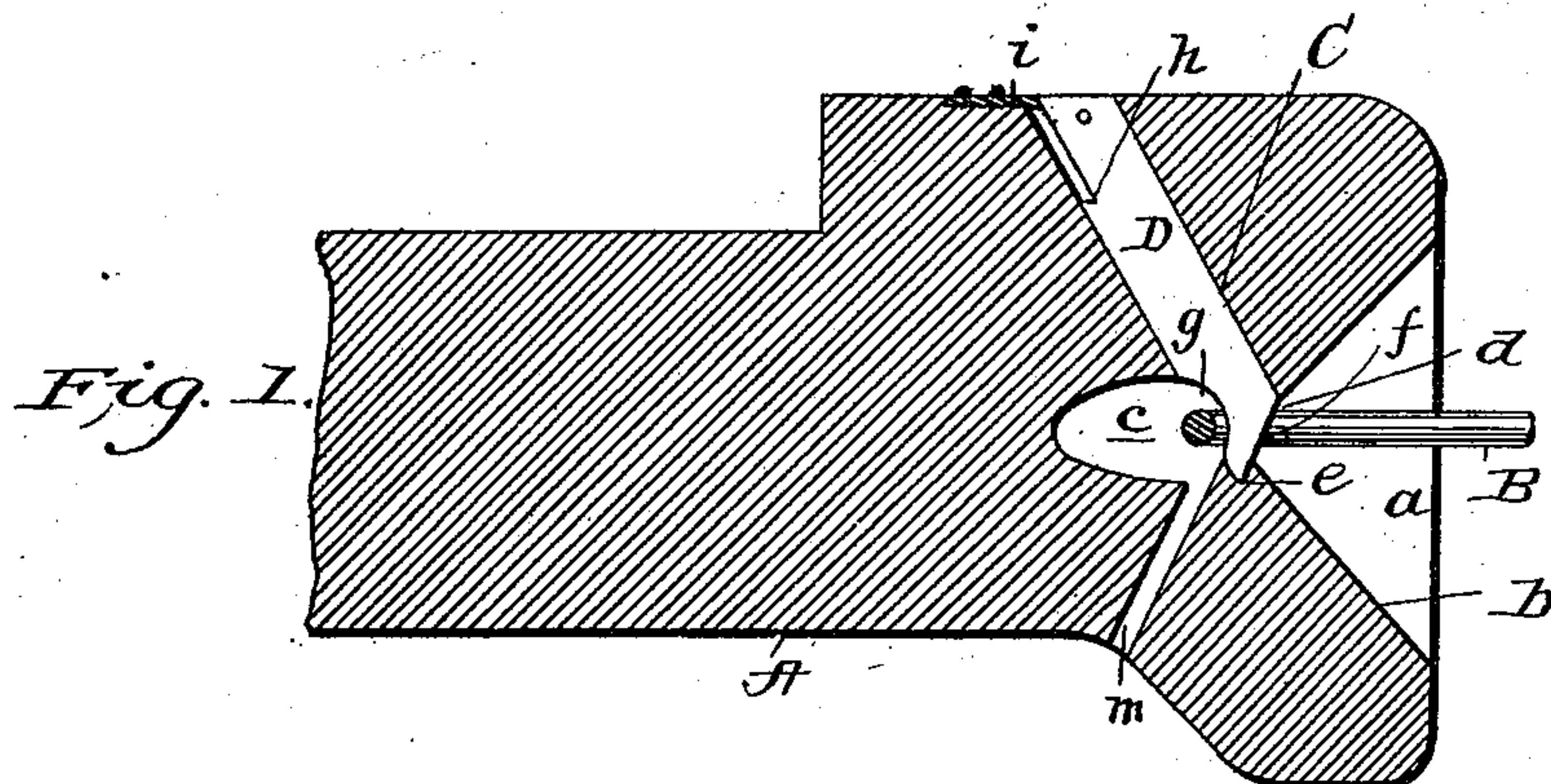


(No Model.)

W. NEWELL.
CAR COUPLING.

No. 512,738.

Patented Jan. 16, 1894.



UNITED STATES PATENT OFFICE.

WILLIAM NEWELL, OF ST. LOUIS, MISSOURI.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 512,738, dated January 16, 1894.

Application filed September 19, 1893. Serial No. 485,923. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM NEWELL, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Car-Couplers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in car couplers; and it has for its general object to provide a coupler of a simple and practical construction, and one which is capable of withstanding the rough usage to which couplers are ordinarily subjected, and which is adapted to automatically effect a coupling when two cars come together.

With the foregoing ends in view, the invention will be fully understood from the following description and claims when taken in connection with the annexed drawings, in which—

Figure 1, is a vertical, longitudinal section of my improved coupler with the pin in the position it assumes to hold the link. Fig. 2, is a similar view illustrating the manner in which the link automatically raises and passes the pin. Fig. 3, is a front elevation of the rock shaft, through the medium of which the pin may be raised from the top or from either side of a car, and Fig. 4, is a front elevation of the drawhead.

Referring by letter to said drawings:—A, indicates the drawhead of my improved coupler; and B, indicates a coupling link which may be of the ordinary or any approved form. The draw head A, is provided in its forward end with a mouth as *a*, to receive the link B, and this mouth has its bottom wall *b*, inclined upwardly and rearwardly as better shown in Figs. 1, and 2, so as to guide the link into the chamber *c*, in the longitudinal center of the draw head, no matter at what elevation it (the link) enters the mouth. The side and top walls of the mouth *a* are preferably converged rearwardly in common with the bottom wall *b*, as illustrated, so as to guide the link and form a contracted throat *d*, between the mouth and the chamber *c*, which throat *d*, is designed to enable the pin to hold the link in a hori-

zontal or approximately horizontal position as will be presently described.

C, indicates the pin aperture or passage of the draw-head. This aperture or passage C, extends from the chamber *c*, at a point adjacent to the throat *d*, to the top of the draw head and it is inclined rearwardly at an angle of about forty five degrees so as to enable the link to automatically raise the pin D, from its seat *e*, and pass into the chamber *c*. The seat or depression *e*, is formed in the bottom of the chamber *c*, immediately in rear of the throat *d*, and in line with the passage C, and it is designed and adapted to seat and retain the pin so as to prevent draft upon the link B, from casually raising the pin and releasing the link.

As better shown in Figs. 1, and 2, of the drawings, the pin D, has its lower end beveled as shown at *f*, so as to rest at about the angle illustrated to the bottom wall *b*, and enable the link to readily raise the pin, when it enters the draw head; and said pin also has its rear side recessed at a point adjacent to its lower end as shown at *g*, so as to afford a seat for the end of the link and enable the link to hold the pin in its seat or depression *e*, when it is in operation. The pin D, furthermore has its upper portion reduced as shown so as to afford the shoulder *h*; and this shoulder is designed and adapted to engage the edge of a plate *i*, which is preferably connected in a detachable manner to the upper side of the draw head and is designed to prevent the pin from being drawn out of the draw head.

For the purpose of preventing cinders, dirt, &c., from collecting in the chamber *c*, and filling the same, I provide the escape passage *m*, which extends from said chamber to the bottom of the draw head as shown.

In order that the pin D, may be readily raised from the top or from either side of a car, I provide the rock-shaft E. Illustrated in Fig. 3. This rock shaft is journaled in suitable bearings upon the end of the car and it has an angular branch *j*, which is connected with the pin by a chain or the like, and also has cranks *k*, at its ends through the medium of which it may be conveniently rocked by a

person standing at either side of the car. The rock shaft E, may be rocked by a person upon the top of the car, through the medium of a rod or chain (not illustrated) which may
5 be connected to the angular branch j.

It will be noticed from the foregoing description taken in connection with the drawings that my improved coupler is very simple and strong; that it embodies but few parts
10 and none which are liable to get out of repair; and that it serves positively and automatically to couple two cars when the same come together.

Having described my invention, what I
15 claim is—

1. In a car coupler, the combination with a draw head having a mouth, a chamber c, communicating with the mouth and provided with a depression or seat e, in its bottom, and the
20 rearwardly inclined aperture or passage C; of a movable pin arranged in the aperture or passage C, and adapted to be seated in the depression or seat e; the said pin having its lower end beveled as indicated at f, substan-
25 tially as and for the purpose set forth.

2. In a car coupler, the combination with a draw head having a mouth provided with rearwardly converging walls, a chamber communicating with the mouth and provided
30 with a depression or seat e, in its bottom, and the rearwardly inclined aperture or passage C, extending from the chamber c, to the top of the draw head, and a plate i, connected to

the top of the draw head and extending over the aperture or passage C; of a movable pin 35 arranged in the aperture or passage C, and adapted to be seated in the depression or seat e, and having its lower end beveled as indicated at f, and also having a shoulder h, adapted to engage the plate i, all substantially as 40 and for the purpose set forth.

3. The herein described car coupler consisting essentially of the draw head having the mouth provided with rearwardly converging walls, a chamber formed in rear of the 45 mouth and communicating therewith and provided with a depression or seat e, in its bottom, the passage m, leading from the chamber c, to the bottom of the draw head, and the rearwardly inclined aperture or passage C, 50 extending from the chamber c, to the top of the draw head, the plate i, connected to the top of the draw head and extending over the aperture or passage C, and a movable pin arranged in the aperture or passage C, and 55 adapted to be seated in the depression or seat e, and having its lower end beveled as indicated at f, and also having a shoulder h, adapted to engage the plate i, all substantially as and for the purpose set forth. 60

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM NEWELL.

Witnesses:

JOS. D. FINDLEY,

RICHARD L. KOENIG.