

No. 709,686.

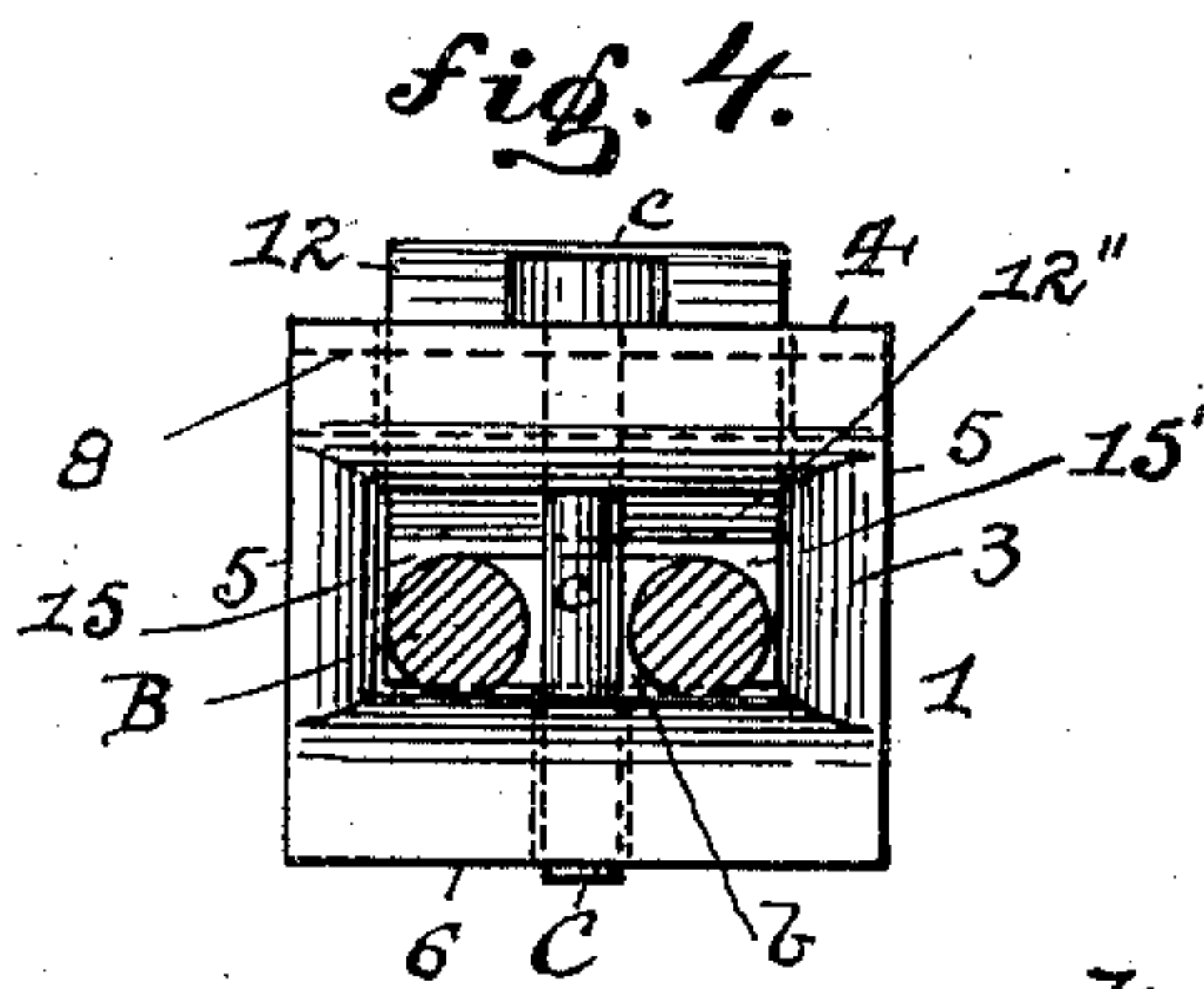
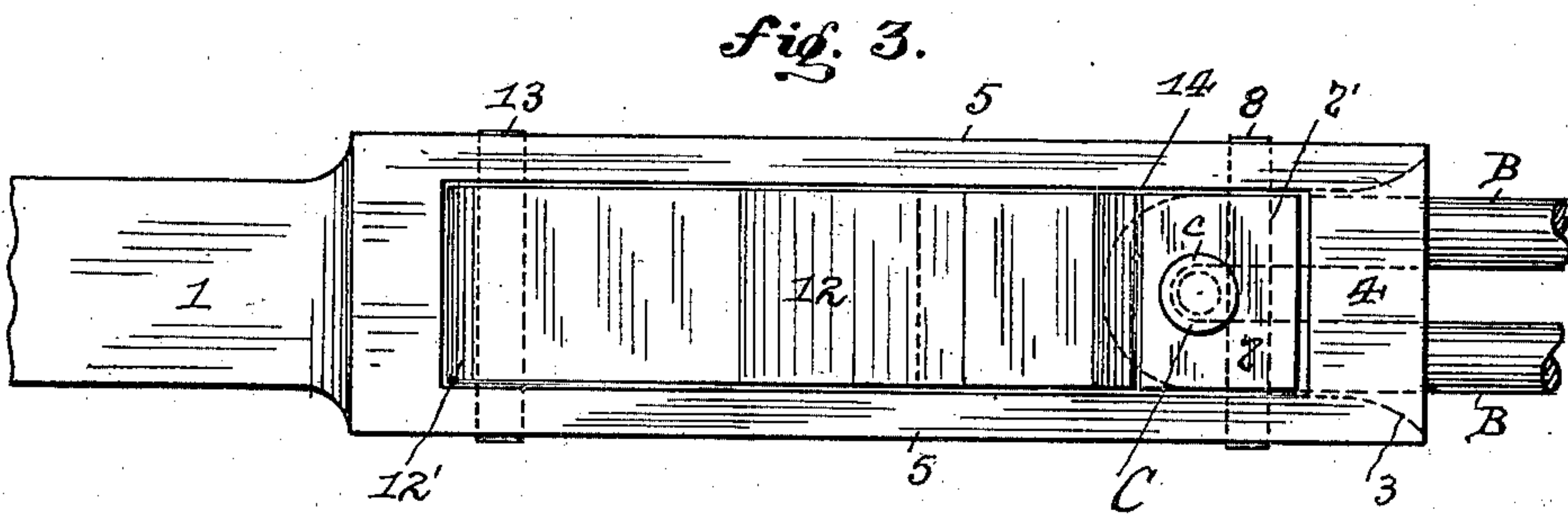
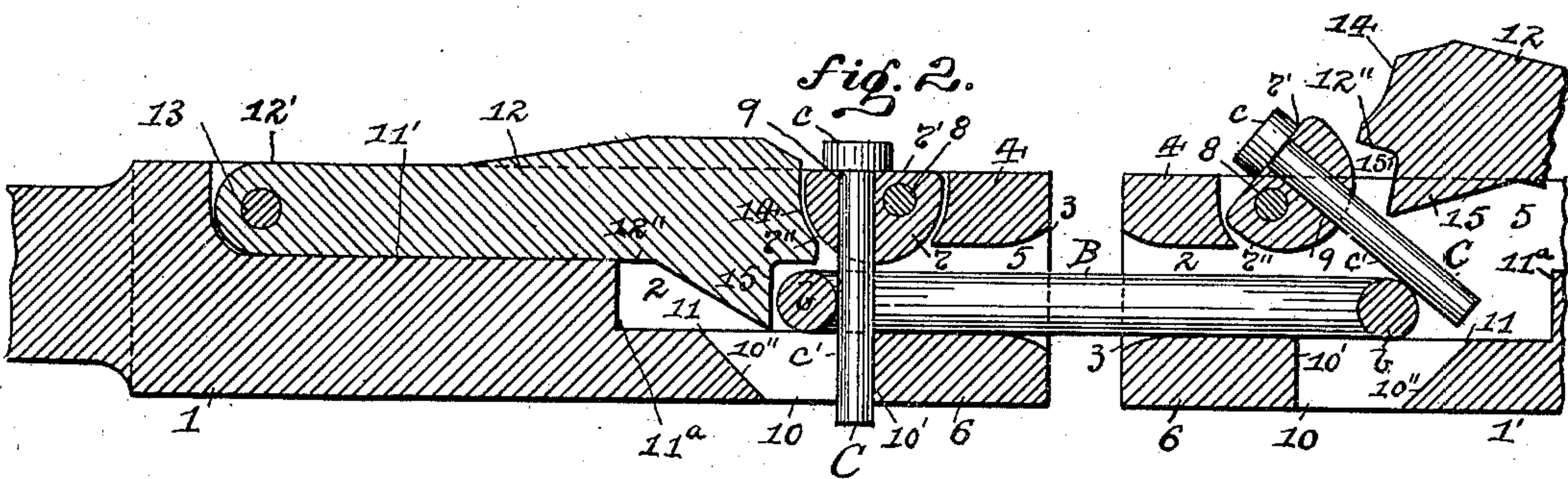
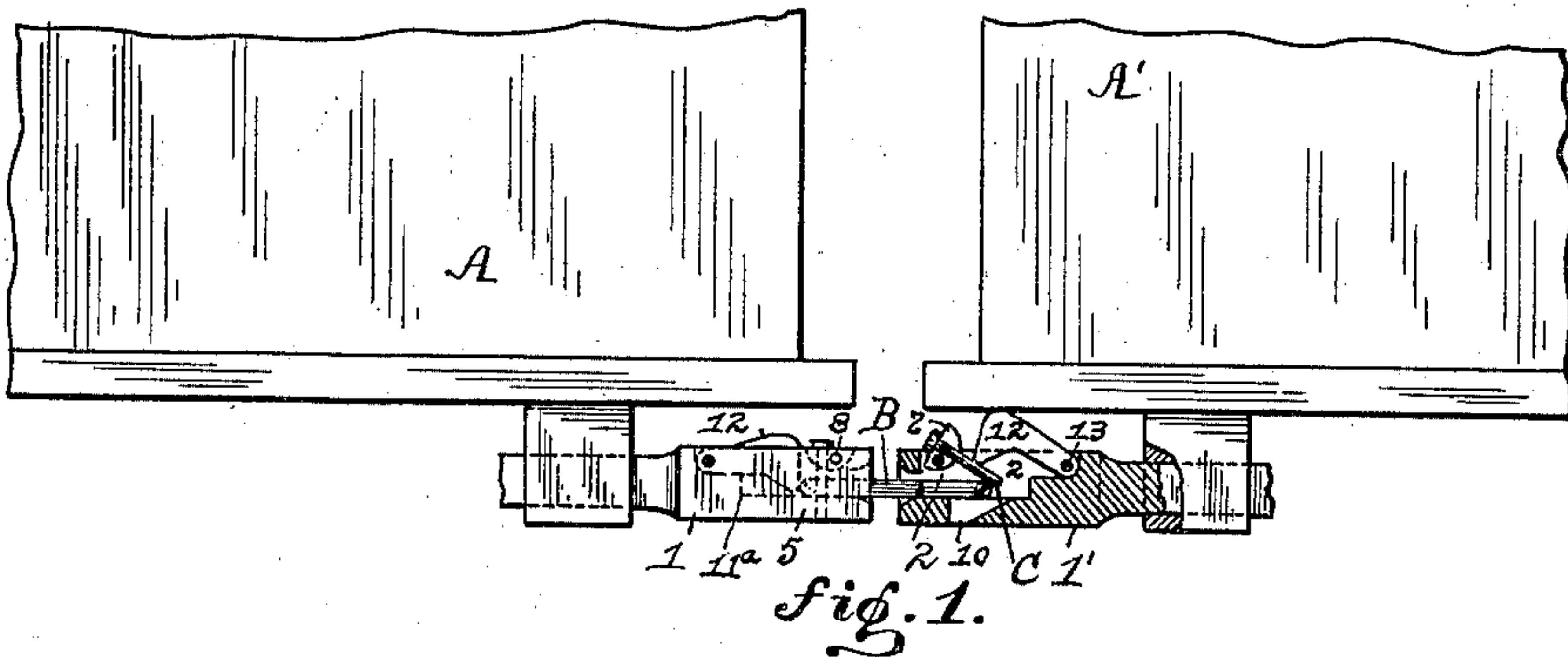
Patented Sept. 23, 1902.

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CAR COUPLING.

(Application filed June 5, 1902.)

(No Model.)



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM T. SEANOR AND EDWARD M. KEPPLER, OF GOFF, PENNSYLVANIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 709,686, dated September 23, 1902.

Application filed June 5, 1902. Serial No. 110,314. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM T. SEANOR and EDWARD M. KEPPLER, residents of Goff, in the county of Westmoreland and State of Pennsylvania, have invented a new and useful Improvement in Car-Couplings; and we do hereby declare the following to be a full, clear, and exact description thereof.

Our invention relates to car-couplings, and has for its object to provide a cheap and simple coupling which will couple itself and one which can be easily and quickly uncoupled when desired.

Our invention consists, generally stated, in the novel arrangement, construction, and combination of parts, as hereinafter more specifically set forth and described, and particularly pointed out in the claims.

To enable others skilled in the art to which our invention appertains to construct and use our improved car-coupler, we will describe the same more fully, referring to the accompanying sheet of drawings, in which—

Figure 1 shows a side elevation of a portion of two cars, showing our improved car-coupling between them about to be coupled together and showing some of the parts thereof in section. Fig. 2 is an enlarged longitudinal central section of the car-coupling in the position shown in Fig. 1. Fig. 3 is an enlarged top view of one draw-head used in forming the coupling, and Fig. 4 is a front view of one of the draw-heads.

Like characters herein indicate like parts in each of the figures of the drawings.

As illustrated in Fig. 1 of the drawings, the ends of two cars are shown at A A', and to each end of said cars A A' are connected and supported in any suitable manner the ordinary approved draw-heads 1 1', and these draw-heads 1 1' are provided with the usual longitudinal space or opening 2 for the link B in the same, which extends back from the mouth 3 thereof, so as to form the top or front wall 4, side walls 5, and bottom wall 6 thereon.

Extending across each of the draw-heads 1 1' in the rear of the front wall 4 is the coupling-pin holder 7, which is adapted to swing by means of the pin or bolt 8, passing through the same and journaled in the side walls 5 of said draw-heads, which pin or bolt 8 is pref-

erably located to one side of the center and near the front of said holder 7. A seat or opening 9 is formed through the holder 7, back of the bolt 8, for the reception of the ordinary coupling-pin C, which is provided with the head c thereon for engaging with the top face 7' of the holder to hold said pin in position, and said pin C passes through a slotted opening 10, formed in the bottom wall 6 in the draw-heads, so that its body portion c' will come in contact with or engage with the forward end or face 10' of said opening 10 when the draft is on the coupling and while the rear end or face 10'' of said opening is inclined backwardly and upwardly, as at 11, to permit the pin C to be swung with the holder 7 when the coupling is being made. A shoulder or stop 11^a is formed in the opening 2 by the raised portion 11' therein, and above this raised portion 11' is the dog 12, which is pivoted at its rear end 12' by the pin or bolt 13, journaled within the side walls 5 of the draw-heads 1 1' and secured in the dog 12. The forward end 14' of the dog 12 is provided with the curved face 14, so as to conform to and engage with a curved lower face 7'' on the coupling-pin holder 7, while below the curved face 14 and extending down from the bottom 12'' of said dog 12 at some distance back from the said face 14 is the stop or projection 15, which forms a seat 15' between said bottom 12'' and such projection 15 for the reception of the ends b of the link B when the parts are coupled together.

The use and operation of our improved car-coupling are as follows: In the use of the coupling the coupling-pin C is placed within the opening 9 of the holder 7 so that its head c rests against the top face 7' of said holder and its body c' comes in contact with the face 10' in the bottom wall 6 of the draw-head 1 by passing through the slotted opening 10 in said wall 6. The link B can then be placed within the opening 2 in the draw-head 1 in the usual manner, and such link in entering said opening will permit its entering end b to strike against the body c' of the coupling-pin C, and so cause said holder 7 and pin C to swing and rise together, and such pin C in rising through the slotted opening 10 into the opening 2 will strike against the projection 15 on the dog 12 and raise the forward

end 14' of said dog by means of its pivoted rear end 12'. When the holder 7 and pin C have been swung and raised sufficiently and the end 14' of the dog 12 has been thus raised
 5 by the body *c* of the pin C engaging the projection 15 thereon to permit the entering end *b* on the link B to pass by the end of the body portion *c* on said pin C and allow the holder 7 and pin C to swing or drop back to its normal position, so that the body *c* of said pin C can pass through the link B and through the slotted opening 10 against the face 10' in the bottom wall 6, while the dog 12 will drop down with the pin C, so as to confine the end
 10 *b* of the link B in the seat 15' between the bottom 12'' of the dog 12 and the projection 15 thereon, such as is shown to the left in Figs. 1 and 2. When it is desired to make a coupling between the cars, such as the cars
 20 A A', and the parts are in the position on the car A, as hereinbefore described, all that is necessary is to drop the coupling-pin C in the opening 9 of the holder 7, which will allow such pin to pass through the slotted opening
 25 10 and rest against the face 10' therein, which will allow the opposite end *b* of the link B to enter the opening 2 in the draw-head 1' as the draw-heads 11' come together in the approach of the cars A A' toward each other and cause
 30 the end of the link B to come in contact with the body *c* of the pin C and swing or raise the same with the holder 7, as well as the dog 12, by body *b* striking against the projection 15 on the same, as shown to the right in Figs. 1
 35 and 2. During the further movement of the link B within the opening 2 of the draw-head 1', so as to pass the end of the said pin C, the said pin and holder 7 will swing or drop back, so as to allow the body *b* on said pin to pass
 40 through the link B into the opening 10 against the face 10', while the dog 12 will also be permitted to be lowered, so as to catch and hold the end *b* of said link B between the bottom 12'' thereof and the projection 15 thereon.
 45 During the movement of the link B into the draw-head 1 said link will be prevented from displacement or movement in the draw-head 1 by the projection 15 on the dog 12 in said draw-head 1, and when the draw-heads 11' are
 50 coupled together and such link is in position the projections 15 on the dogs 12 in the said draw-heads will prevent any material or unnecessary longitudinal movement of said link, as well as permitting the use of the ordinary
 55 length of link, and while the link B is being placed in either one of the draw-heads the stop 11 within the opening 2 of said draw-heads will prevent said link from being inserted too far within said draw-heads. When
 60 it is desired to uncouple the coupling, all that is necessary is to raise one or both of said coupling-pins C within the holder 7 or withdraw one or both of said pins C, so as to free the same from the opening 10 and from with-
 65 in the link B, when said link can be withdrawn from either or both of said draw-heads by the movement of the car or cars away from

each other, after which the pins C can be lowered or replaced within the holders 7 and opening 10 ready for another operation in making
 70 a coupling.

It will be evident that in some cases, such as in the use of the coupling on mine cars, &c., the link can be made stationary on one end of a car and a draw-head used on the opposite end having our improved coupling device connected thereto, in which case the dog for engaging with the coupling pin and link can be dispensed with. These and various other modifications and changes in the construction, design, and arrangement of the various parts may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

It will thus be seen that our improved car-coupling is cheap and simple in its parts and operations, and by its use cars can be easily and quickly coupled together by reason of the same being automatic and self-acting. The device can be uncoupled in the ordinary manner, and its use will prevent injury or loss of life to the operatives, as well as enabling the parts to be made strong and durable without liability of getting out of order in the rough usage such devices ordinarily receive.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. In a car-coupling, the combination with a draw-head, of a swinging holder mounted within said draw-head having an opening through the same, and a coupling-pin passing through said opening and through an opening in the bottom of the draw-head and adapted to swing with said holder by the engagement of the coupling-link with said pin during the insertion of said link in the draw-head, said pin being adapted to pass through said link and come in contact with the forward end of the opening in the draw-head when the link is in its position for coupling.

2. In a car-coupling, the combination with a draw-head, of a swinging holder mounted within said draw-head having an opening through the same, a coupling-pin passing through said opening and through an opening in the bottom of said draw-head and adapted to swing with said holder by the engagement of the coupling-link with said pin during the insertion of said link in the draw-head, said pin being adapted to pass through said link and come in contact with the forward end of said opening in the draw-head when the link is in position for coupling, and a stop within said draw-head to limit the movement of said link during its insertion in said draw-head.

3. In a car-coupling, the combination with a draw-head, of a swinging holder mounted within said draw-head having an opening through the same, a coupling-pin passing through said opening and through an opening in the bottom of said draw-head and adapted to swing with said holder by the engagement of the coupling-link with said pin dur-

ing the insertion of said link in the draw-head, said pin being adapted to pass through said link and come in contact with the forward end of said opening in the draw-head
5 when the link is in position for coupling, and a dog mounted in said draw-head adapted to be raised by the swinging of said pin to permit of the insertion of said link in the draw-head and engage with said pin to return and
10 hold said pin and holder in their normal position.

4. In a car-coupling, the combination with a draw-head, of a swinging holder mounted within said draw-head having an opening
15 through the same, a coupling-pin passing through said opening and through an opening in the bottom of said draw-head and adapted to swing with said holder by the engagement of the coupling-link with said pin during the insertion of said link in the draw-
20

head, said pin being adapted to pass through said link and come in contact with the forward end of said opening in the draw-head when the link is in position for coupling, a dog mounted in said draw-head adapted to
25 be raised by the swinging of said pin to permit the insertion of the link in the draw-head and engage with said pin to return and hold said pin and holder in their normal positions, and a stop or projection on said dog
30 adapted to hold said link in position around said pin.

In testimony whereof we, the said WILLIAM T. SEANOR and EDWARD M. KEPPLE, have hereunto set our hands.

WILLIAM T. SEANOR.
EDWARD M. KEPPLE.

Witnesses:

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