

(Model.)

J. P. DAVISON.
CAR COUPLING.

No. 267,645.

Patented Nov. 14, 1882.

Fig. 2.

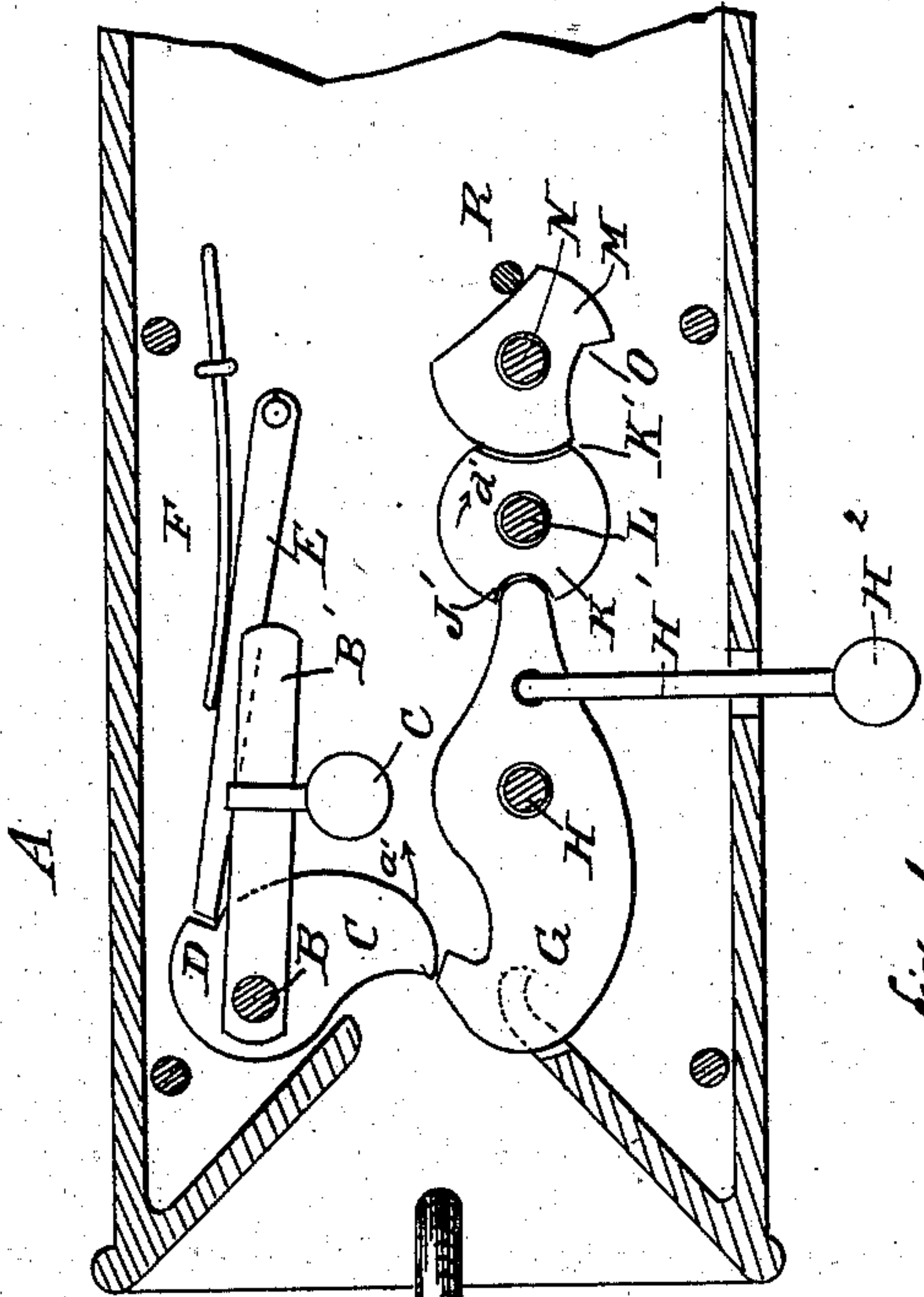


Fig. 4.

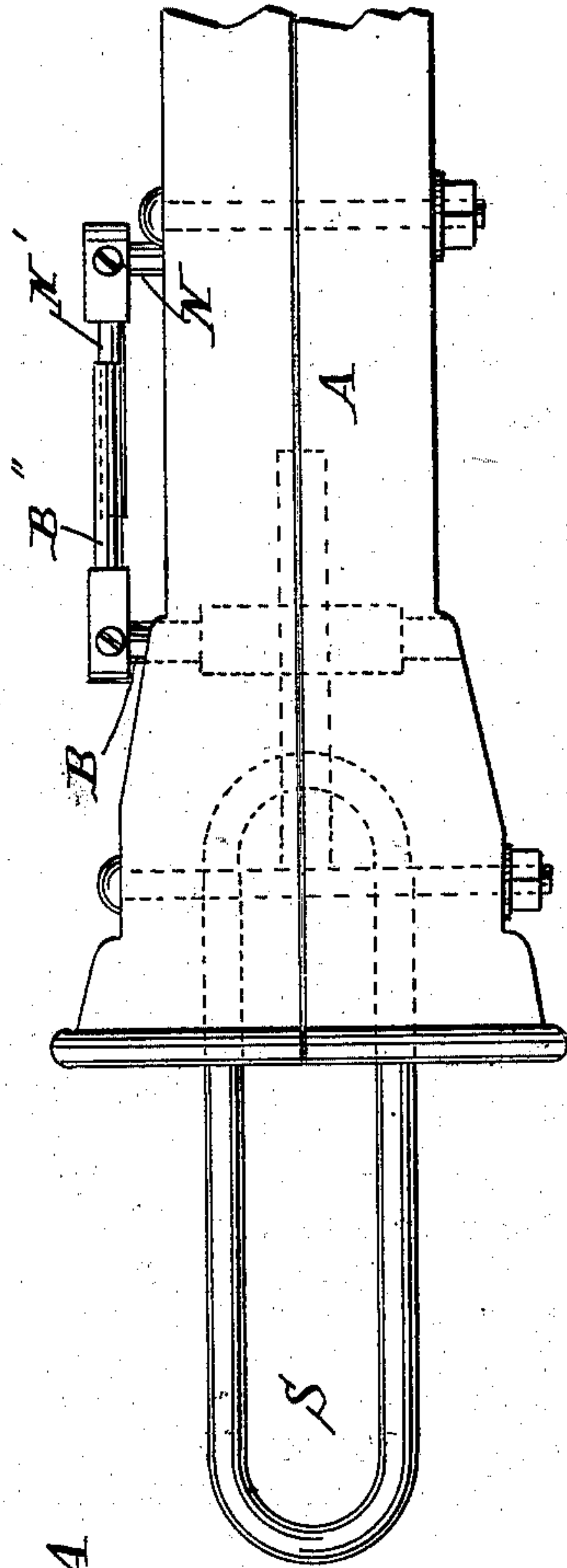


Fig. 1.

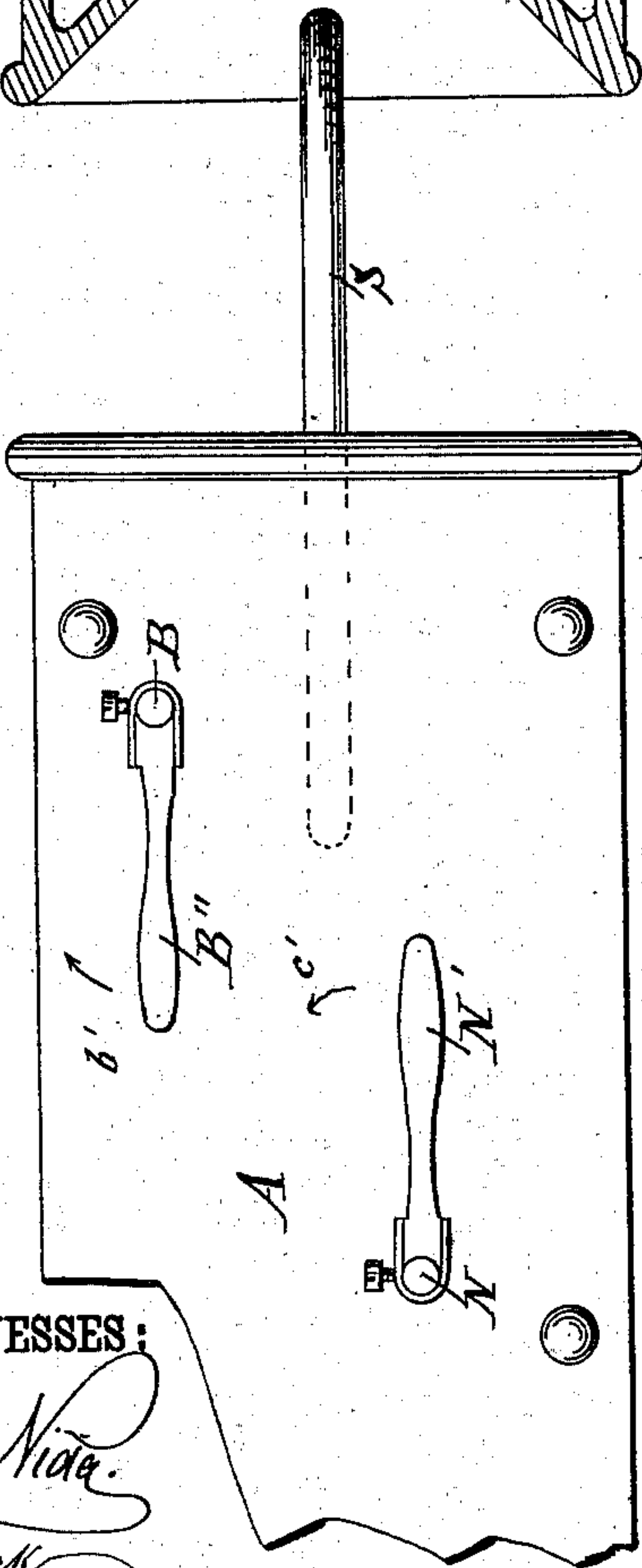
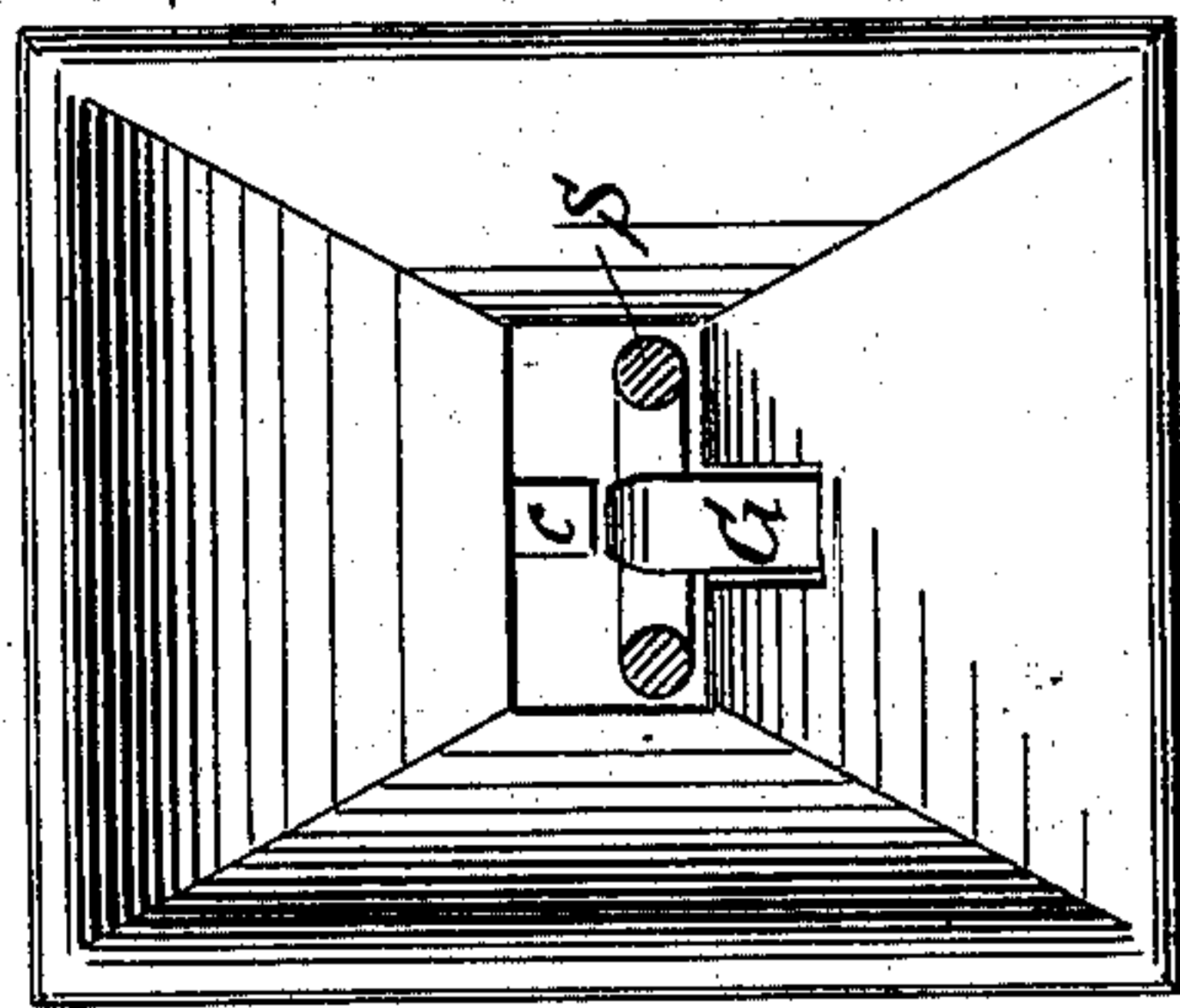


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES P. DAVISON, OF ST. JOHN, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 267,645, dated November 14, 1882.

Application filed September 22, 1882. (Model.)

To all whom it may concern:

Be it known that I, JAMES P. DAVISON, of St. John, in the county of Perry and State of Illinois, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

The invention consists in a draw-head provided with a swinging spring-latch partially crossing the end opening of the draw-head from above, and in a spring-hook latch partially crossing the draw-head opening from below, which lower spring-latch is provided at its rear end with a tapering projection fitting into a notch in a disk mounted on a transverse shaft, which disk is provided opposite the notch with a segmental recess, into which a second disk passes which is mounted on a transverse shaft provided with a handle, whereby the hook-latch will be locked in position and cannot be lowered until the said handle is turned, whereby the disks will be turned and will permit a movement of this lower hook-latch.

The invention also consists in combinations of parts, as will be fully described and set forth hereinafter.

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

Figure 1 is a longitudinal elevation of my improved draw-head. Fig. 2 is a longitudinal sectional elevation of the same. Fig. 3 is an end elevation of the same, and Fig. 4 is a plan view of the same.

The draw-head A is provided with an opening beveled on the sides and on the top and bottom, as shown in Figs. 2 and 3. Above the inner end of this beveled opening of the draw-head a transverse shaft, B, is journaled, on which a curved latch, C, is mounted within the draw-head, and in such a manner that it partially crosses the middle of the inner end of the end opening of the draw-head. The said latch C is provided with a shoulder, D, against which a lever, E, rests, which is pressed downward by a spring, F, secured on the side of the draw-head. The shaft B is provided with an arm, B', on which a weight, C', rests, which turns the lower end of the latch C toward the outer end of the draw-head. A hook-latch, G, is mounted on a transverse shaft, H, in the draw-head in such a manner that the longi-

tudinal axis of the latch will be in a horizontal plane, and the hook end will project into a slot in the inner end of the bottom bevel of the end opening of the draw-head, as shown in Figs. 2 and 3. A weight, H², is suspended by means of a rod, H', from the lever H, and turns the outer end of the same upward. At its rear end the latch G is provided with a tapering projection, J, the end of which passes into a transverse notch, J', in a disk, K, mounted on a transverse shaft, L, and opposite the notch J' it is provided with a segmental recess, K', into which the edge of the disk M passes, which disk is mounted on a transverse shaft, N. The disk M has a segmental part cut off on one side, and at the opposite side it is provided with a notch, O. A transverse check-stud, R, about in line with the shafts H L N, and resting against the flat edge of the disk M, checks the movement of the same. The shaft B projects from the side of the draw-head and is provided with a handle, B'', and the shaft N projects from the draw-head and is provided with the handle N'.

The operation is as follows: To couple the cars the coupling-link S need only be passed into the end opening of the draw-head. It then comes in contact with the lower end of the latch C, and swings the same inward in the direction of the arrow a', and then drops into the hook recess of the latch G, which latch is held in a horizontal position, as shown. As soon as the end of the link S passes the hook C the weight C' immediately draws the hook downward again. The link will then be held in the draw-head and cannot be withdrawn unless the latch C is raised or the latch G is lowered. To raise the latch C the handle B'' is turned in the direction of the arrow b'. Then the link can be lifted out of the hook-recess of the latch G. If the cars are to be uncoupled by being drawn apart, the latch G must be moved downward by the link as the same is drawn from the draw-head. If the parts are in the position shown in Fig. 2, this cannot take place. The disk M prevents the rotation of the disk K, and the disk K holds the inner end of the latch-lever G. Therefore, to permit the movement of the latch-lever G, the lever N must be turned in the direction of the arrow c', so that the notch O of the disk M will be opposite the segmental recess K' of the disk K, thereby per-

mitting the disk K to move in the direction of the arrow d' , the end of the projection J on the latch G can then move upward and the outer end of the latch G can be moved downward by the link as it is drawn out of the draw-head.

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

1. The combination, with the draw-head A, of the transverse shaft B, the latch C, the lever E, and the spring F, substantially as herein shown and described, and for the purpose set forth.

2. The combination, with the draw-head A, of the latch C, extending partially across the draw-head end opening from above, and the hook-latch G, extending partially across the draw-head opening from below, substantially as herein shown and described, and for the purpose set forth.

3. The combination, with the draw-head A, of the shaft B, the latch C, the arm B' on the shaft B, the weight C' on the arm B', and the latch G, substantially as herein shown and described, and for the purpose set forth.

4. The combination, with the draw-head A, of the latch C, the latch G, and the weight H², substantially as herein shown and described, and for the purpose set forth.

5. The combination, with a draw-head, of

the transverse shaft B, the latch C, the handle B'', the hook-latch G, the disk K, the disk M, the transverse shaft N, and the handle N', substantially as herein shown and described, and for the purpose set forth.

6. The combination, with the draw-head A, of the transverse shaft B, the latch C, the hook-latch G, provided at its rear end with a projection, J, the disk K, provided with the notch J', and a segmental recess, K', the disk M, having part cut out and being provided with the notch O, the shaft N, and the handle N', substantially as herein shown and described, and for the purpose set forth.

7. The combination, with the draw-head A, of the shaft B, the latch C, the hook-latch G, the weight H², the disk K, the disk M, the shaft N, and the handle N', substantially as herein shown and described, and for the purpose set forth.

8. The combination, with the draw-head A, of the transverse shaft B, the latch C, the hook-latch G, the weight H², the disk K, the disk M, and the check-stud R, substantially as herein shown and described, and for the purpose set forth.

JAMES P. DAVISON.

Witnesses:

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