(No Model.)

4 Sheets—Sheet 1.

A. SILBERMANN.

CAR COUPLING.

No. 551,479. Patented Dec. 17, 1895.

Fig. 1.

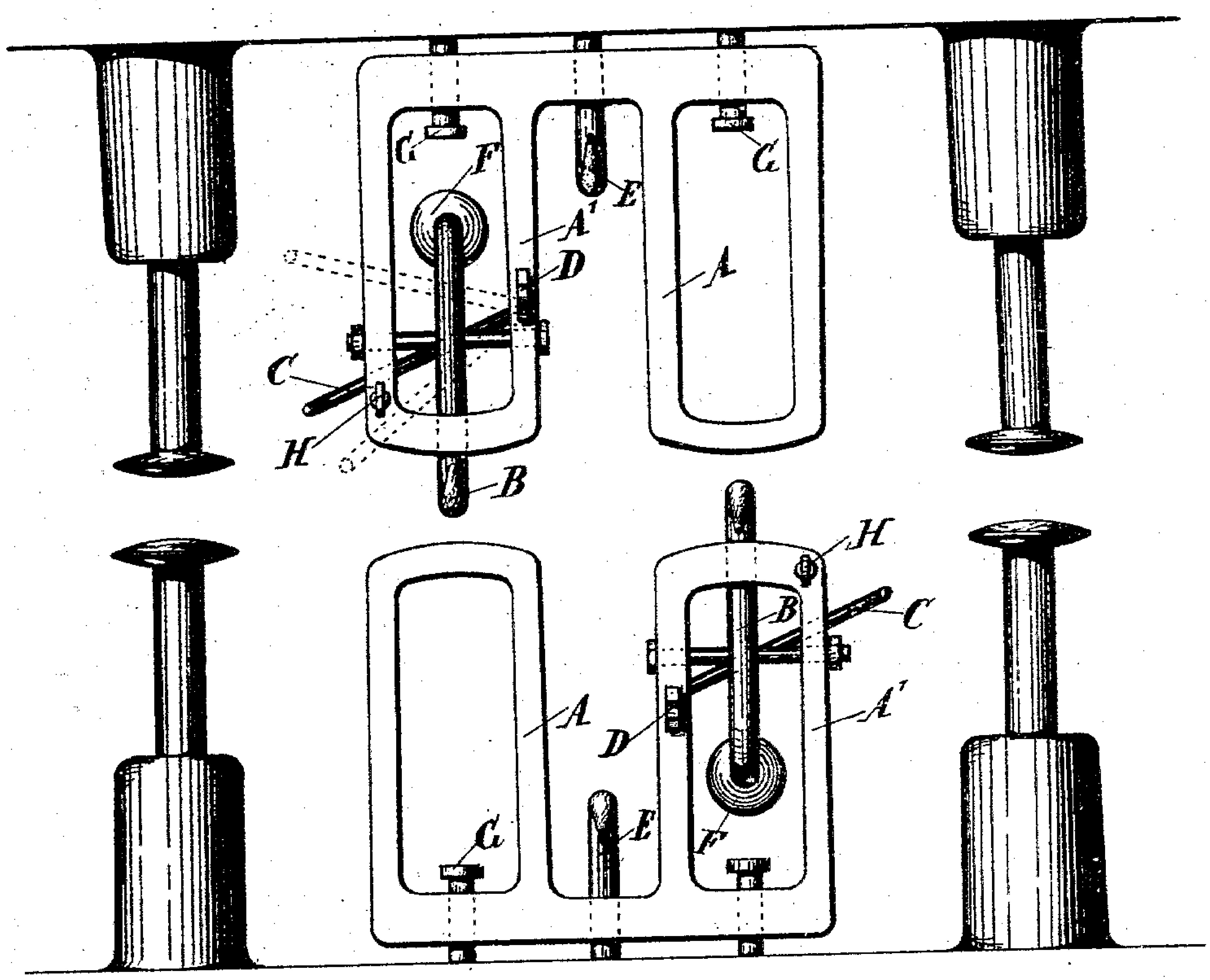
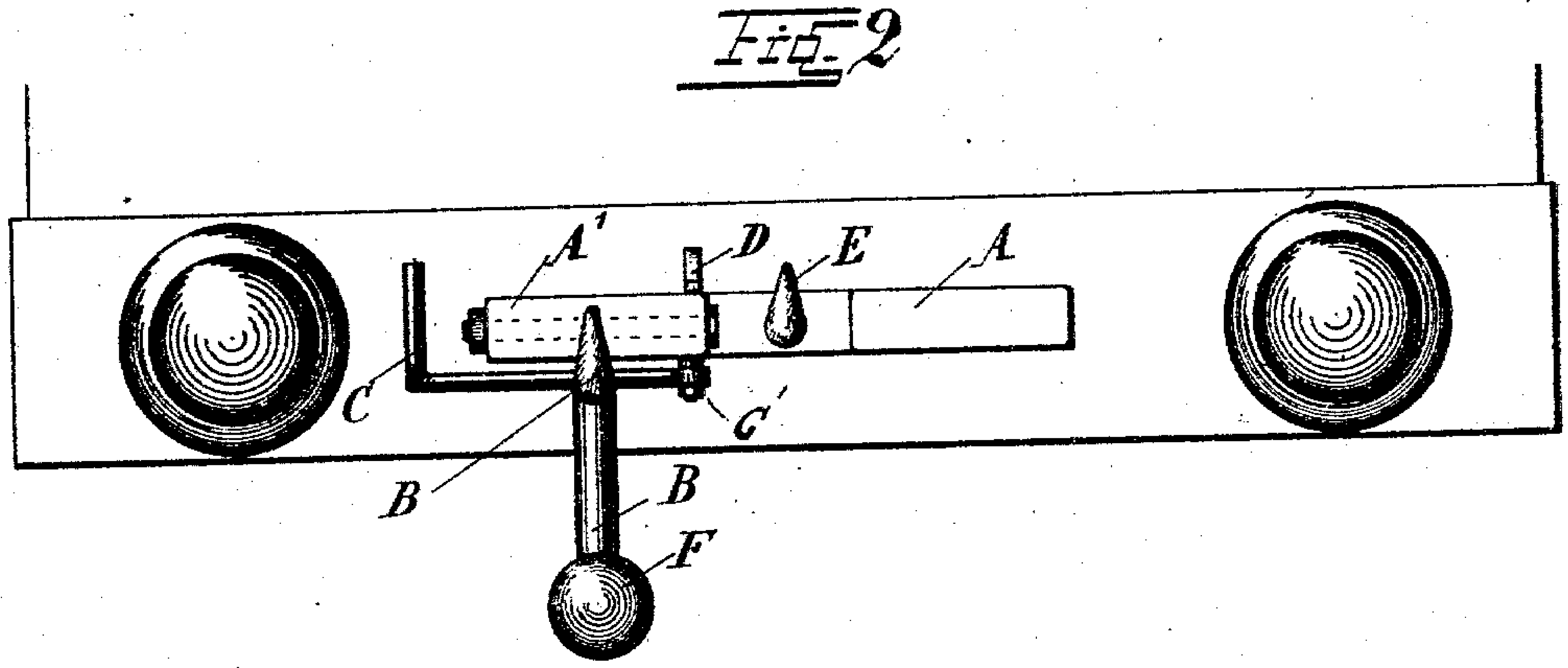


Fig. 2



Witnesses

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By his Attorney.

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(No Model.)

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CAR COUPLING.

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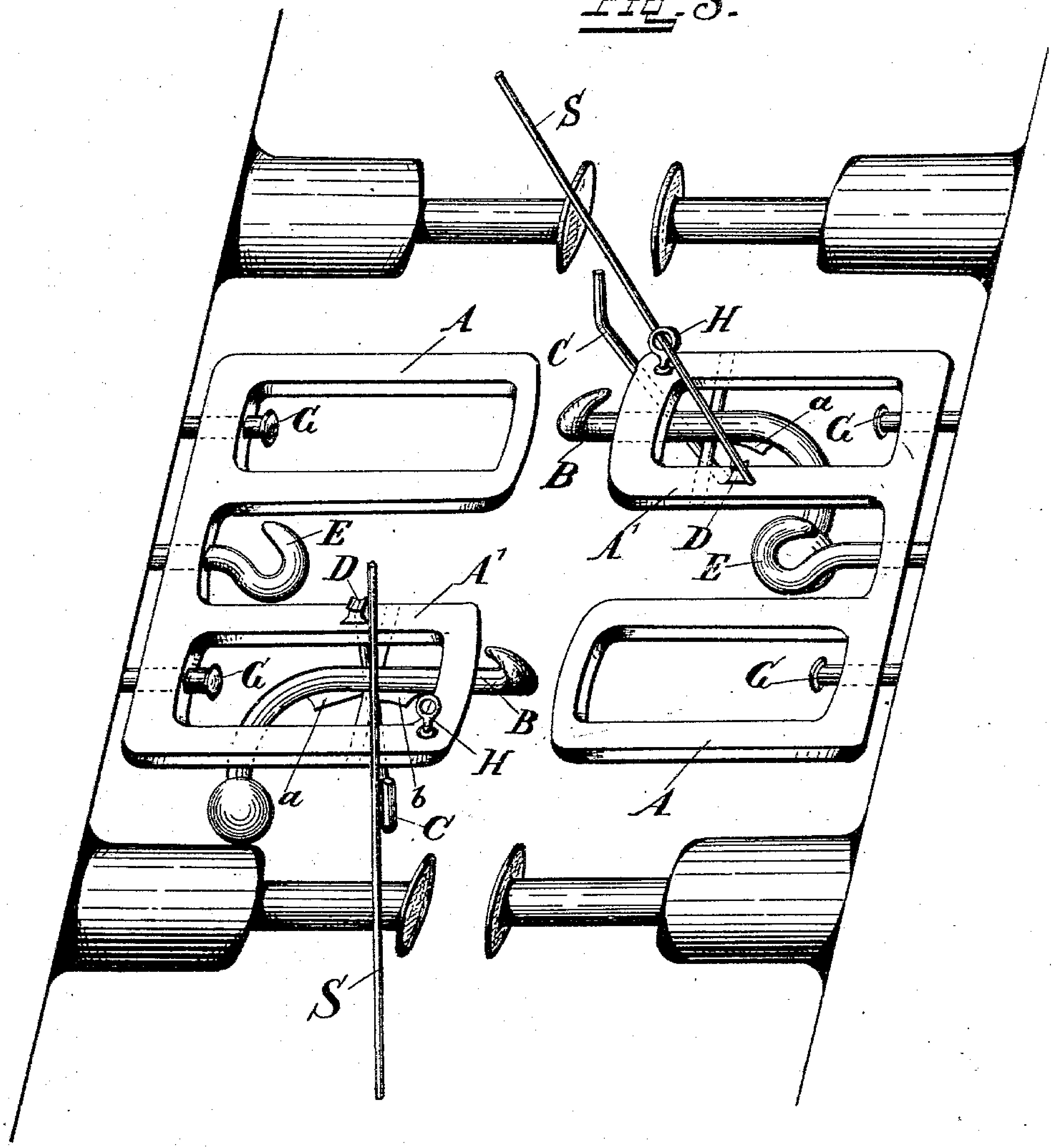
Fig. 3.



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(No Model.) 4 Sheets—Sheet 3.

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No. 551,479. Patented Dec. 17, 1895.

FIG. 4.

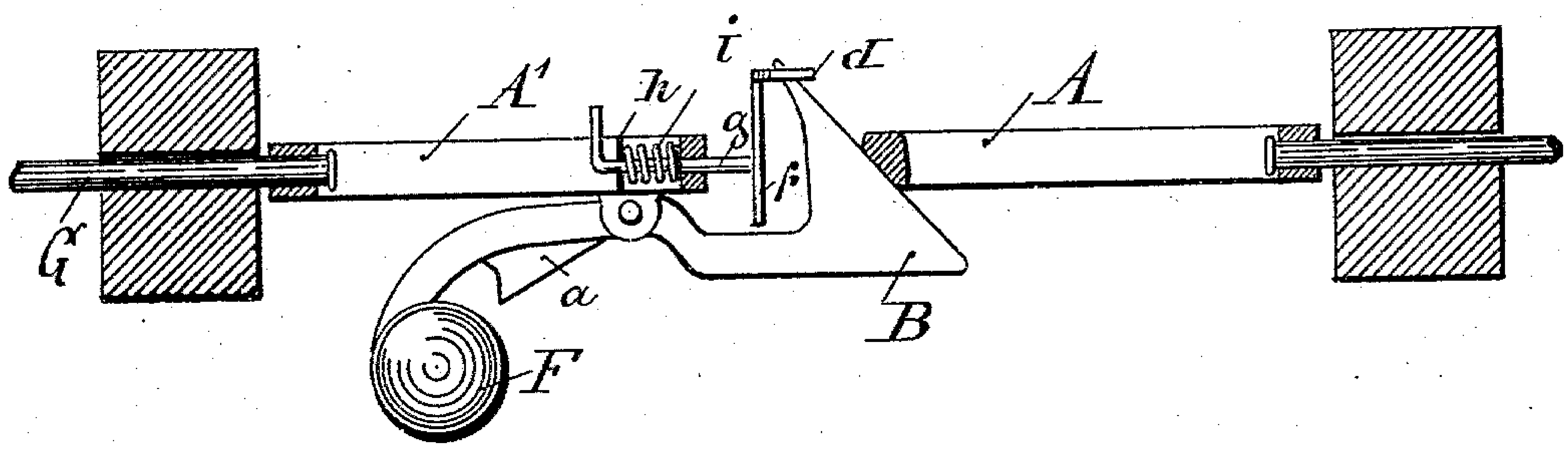
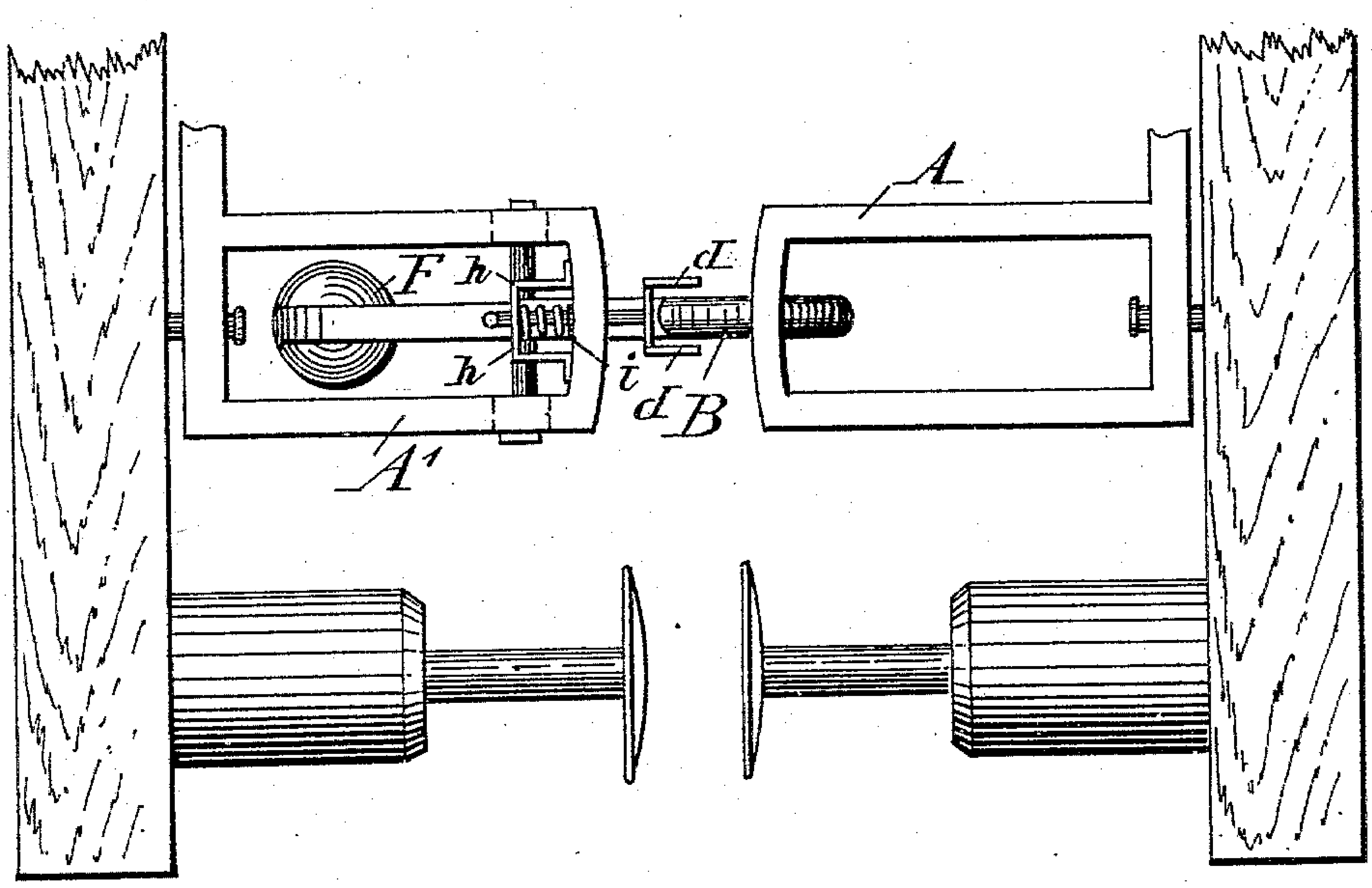


FIG. 7.



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(No Model.)

4 Sheets—Sheet 4.

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No. 551,479. Patented Dec. 17, 1895.

Fig. 5.

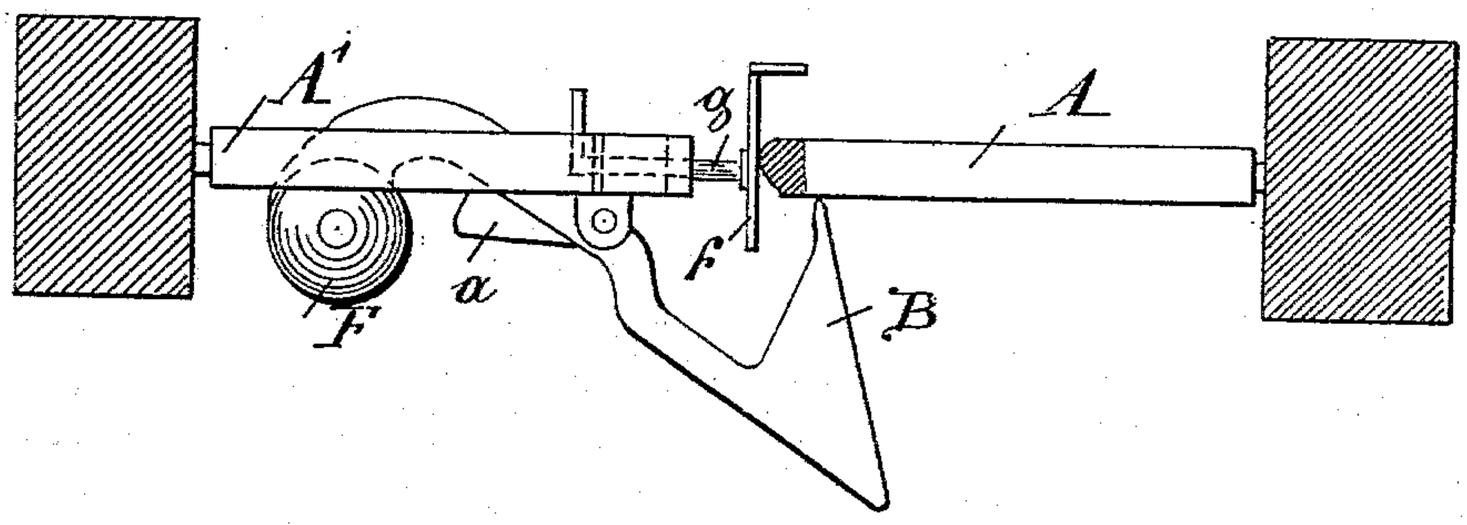
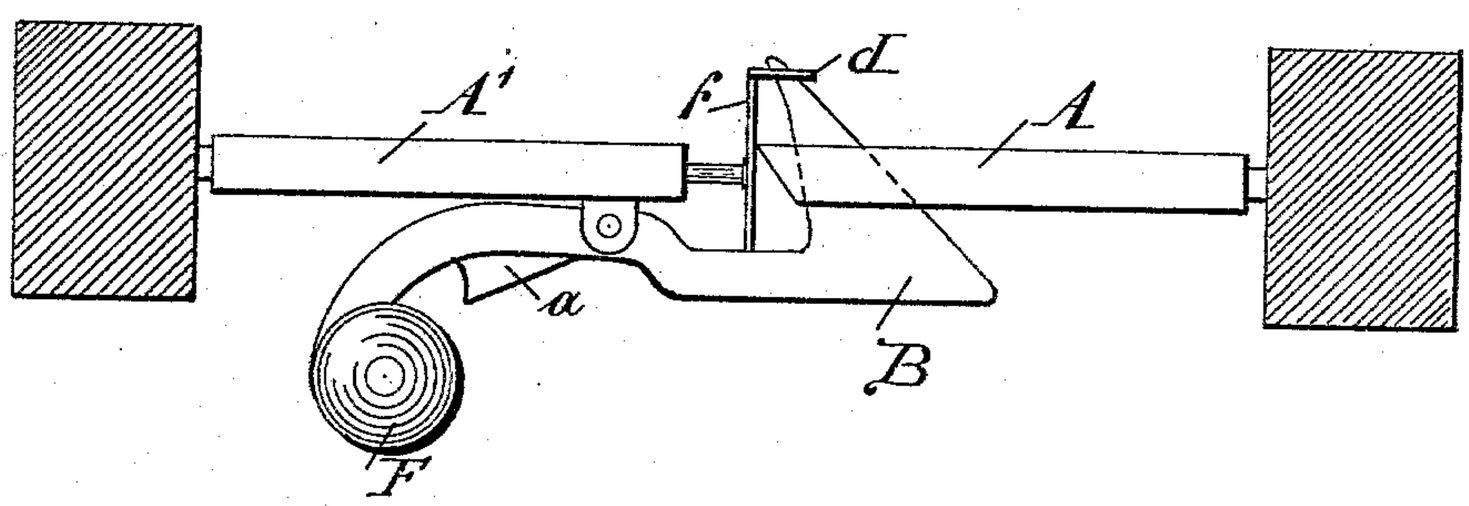


Fig. 6.



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UNITED STATES PATENT OFFICE.

ALBERT SILBERMANN, OF BERLIN, GERMANY.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 551,479, dated December 17, 1895.

Application filed May 11, 1894. Serial No. 510,885. (No model.)

To all whom it may concern:

Be it known that I, ALBERT SILBERMANN, a subject of the King of Prussia, German Emperor, residing at Berlin, in the Kingdom of Prussia, German Empire, have invented a certain new and useful Improved Car-Coupling, of which the following is a full, clear, and exact description.

The present invention relates to a car-coupling, and its object is to enable the coupling of the cars to take place to a certain extent automatically, thus avoiding the necessity of the officials going between the cars in order to couple them, and the danger accruing therefrom; and in order to make this specification more easily intelligible reference is had to the accompanying drawings, in which similar letters denote similar parts throughout the several views.

Figure 1 represents a plan view of the coupling; Fig. 2, an end elevation; Fig. 3, a perspective view of the same. Fig. 4 shows in sectional side elevation means for preventing an inadvertent uncoupling of the hook. Fig. 5 is a similar sectional elevation showing the hook in position about to engage with the link of the opposite car; Fig. 6, a side elevation of the coupling when the cars are coupled; and, lastly, Fig. 7, a half plan view of Fig. 4.

Referring to Figs. 1 to 3, A A′ is a rigid frame attached to each end of the car on the bolts G G and hooks E E, on which the same is free to slide a short distance in the horizontal plane. In the part A′ of the said frame is pivoted the coupling-hook B having downwardly-extending arm with counterbalance-weight F. Underneath the horizontal part of the said hook is pivoted at C′ to the part A′ of the frame A A′ a lever-arm C, which may be moved to describe a path, as shown in dotted lines in Fig. 1. The hook B is provided with an inclined surface *a* underneath, while on the upper part of the frame A′ a rest-block D is arranged for the purpose of enabling the coupling-hook B to be operated by means of a rod from the lever C, as hereinafter more particularly described.

The coupling is manipulated in the following manner: On running the cars together the hook B of the frame part A′ will engage in the link A of the frame A A′ on the other car by reason of the rigidly-guided front bar of the said link pressing against the slanting front end of the said hook B and depressing the same, which on having passed the said front bar will rise through the action of its counterbalance-weight F behind the said bar. The hook may then be prevented from inadvertently becoming uncoupled by pushing the lever-arm C under the hook in the position shown in the upper part of Fig. 3. This may be done by means of a rod from the side by using the block D as a fulcrum and pressing the lever over by means of its upwardly-extending end. The said lever-arm C may be retained in this position either by means of an inclined plane on the under side of the hook, as shown at *b*, Fig. 3, behind which the said lever may be adapted to spring, or by means of a pin H, (see upper part of Fig. 3,) which may be inserted in the frame A′ to retain the lever C. Said pin may also be inserted by the aid of a rod S, as shown,

Figs. 4 to 7 represent a device for securing the hook B, consisting of a fork *d* mounted on a vertical arm *f*, having backwardly-extending guide-rod *g*, supported in the front bar of the link A′ and in a rearwardly-extending guide *h*, and having a spring *i* to normally press the said fork *d* forward. The action of the device is as follows: When the cars are coupled the upper part of the hook B passes into the fork *d*, as shown in Fig. 6, so that the latter will prevent the link A from inadvertently rising out of the hook owing to the jolting of the cars. The spring *i* allows a backward play of the fork *d* in case the carriages run against each other rather sharply.

In order to uncouple the cars it is only necessary to push the lever back in the opposite direction to that shown in Fig. 3, by means of the rod S, when the said lever will contact with the inclined surface *a*, raising the rear part of the hook B with the counterbalance-weight and disengaging the same from the link A.

I claim as my invention—

1. The combination of the rigid frame A A′, attached to the end of the car and having slight horizontal play a hook B pivotally suspended in the part A′ of said frame and having counter balance weight as specified, and inclined surface *a*, a lever arm C pivotally attached at C′ to the under side of the part

A′ of said frame and means of retaining said lever in position under the hook B substantially as described.

2. The combination of a rigid frame A A′ attached to the end of the car and having slight horizontal play, a hook B pivotally suspended in the part A′ thereof, a counter balance weight to said hook, a lever C pivoted underneath the frame link A′, an inclined plane *a* underneath said hook B, a securing fork *d* having spring *i* and horizontal guide *h* substantially as described and shown.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ALBERT SILBERMANN.

Witnesses:
L. A. EDWARDS,
W. H. EDWARDS.