

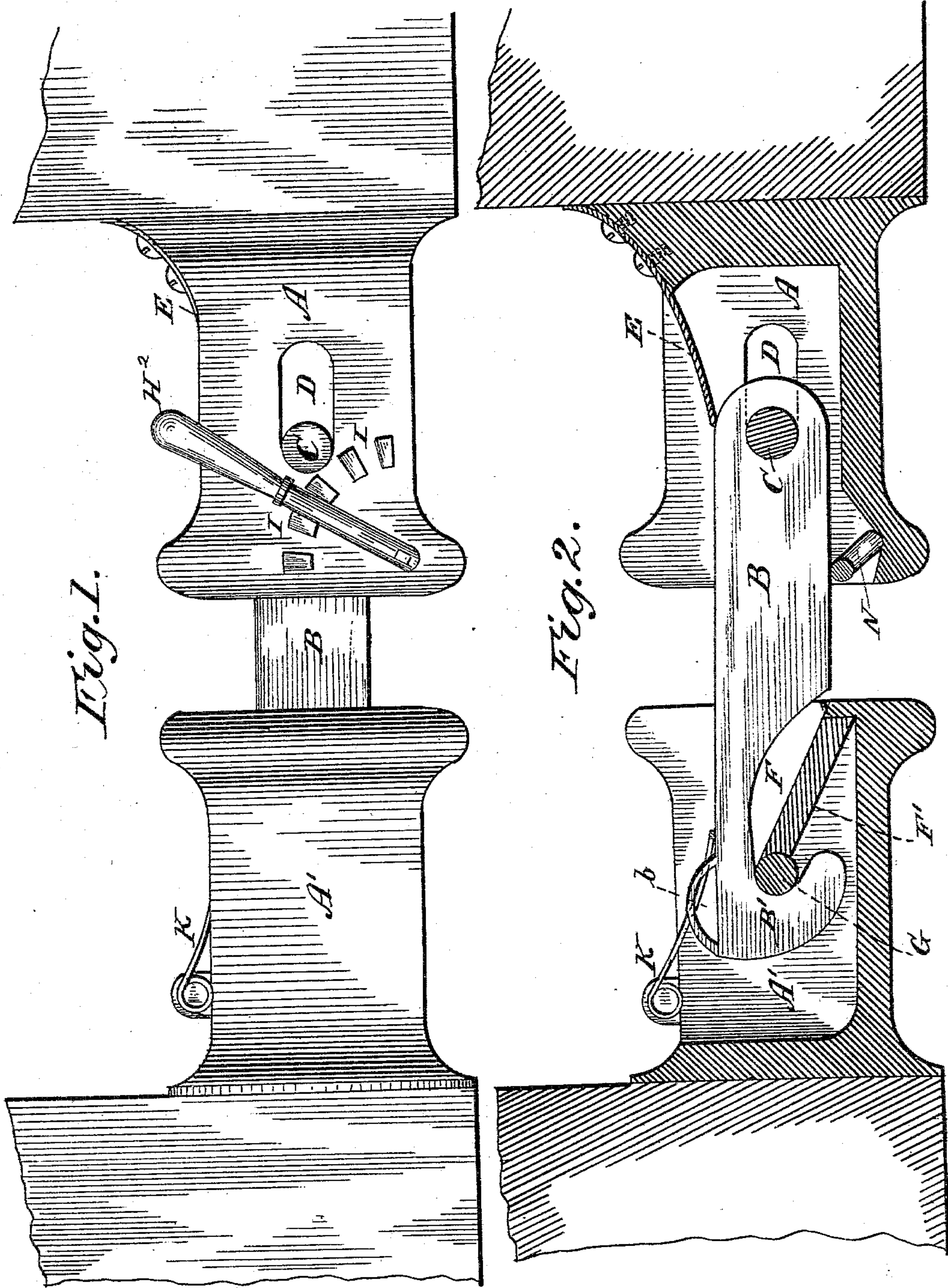
(No Model.)

2 Sheets—Sheet 1.

T. L. McKEEN.
CAR COUPLING.

No. 296,597.

Patented Apr. 8, 1884.



WITNESSES:

Fred. G. Dieterich,
Arthur L. Morrell.

INVENTOR.

Thomas L. McKeen.
By Louis Hagger & Co.
ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

T. L. McKEEN.

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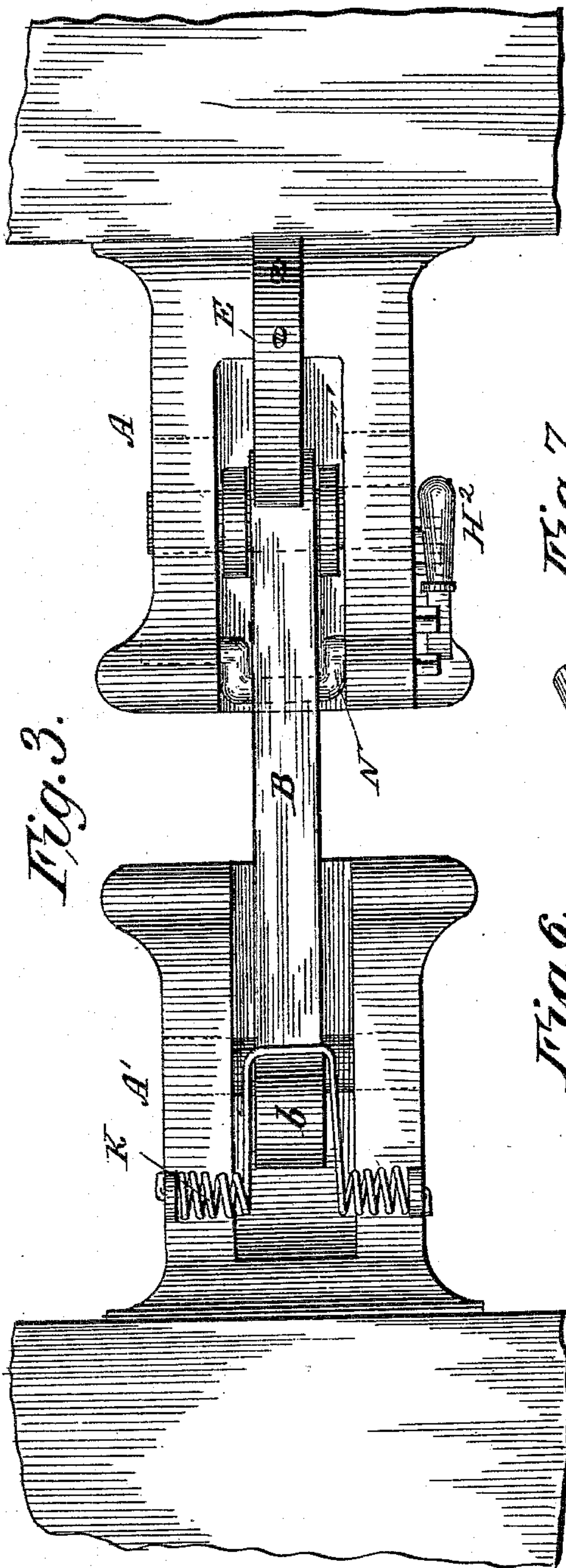


Fig. 3.

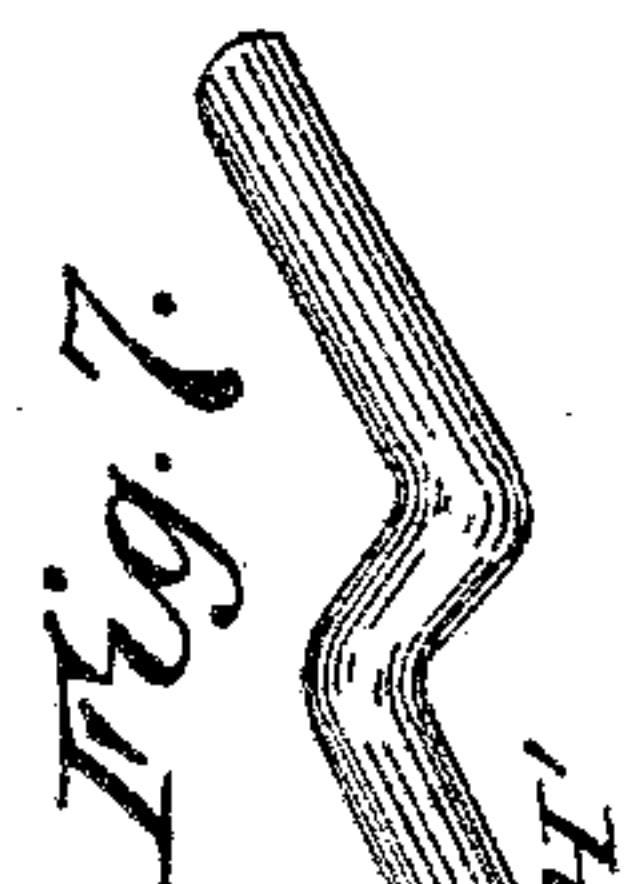


Fig. 7.

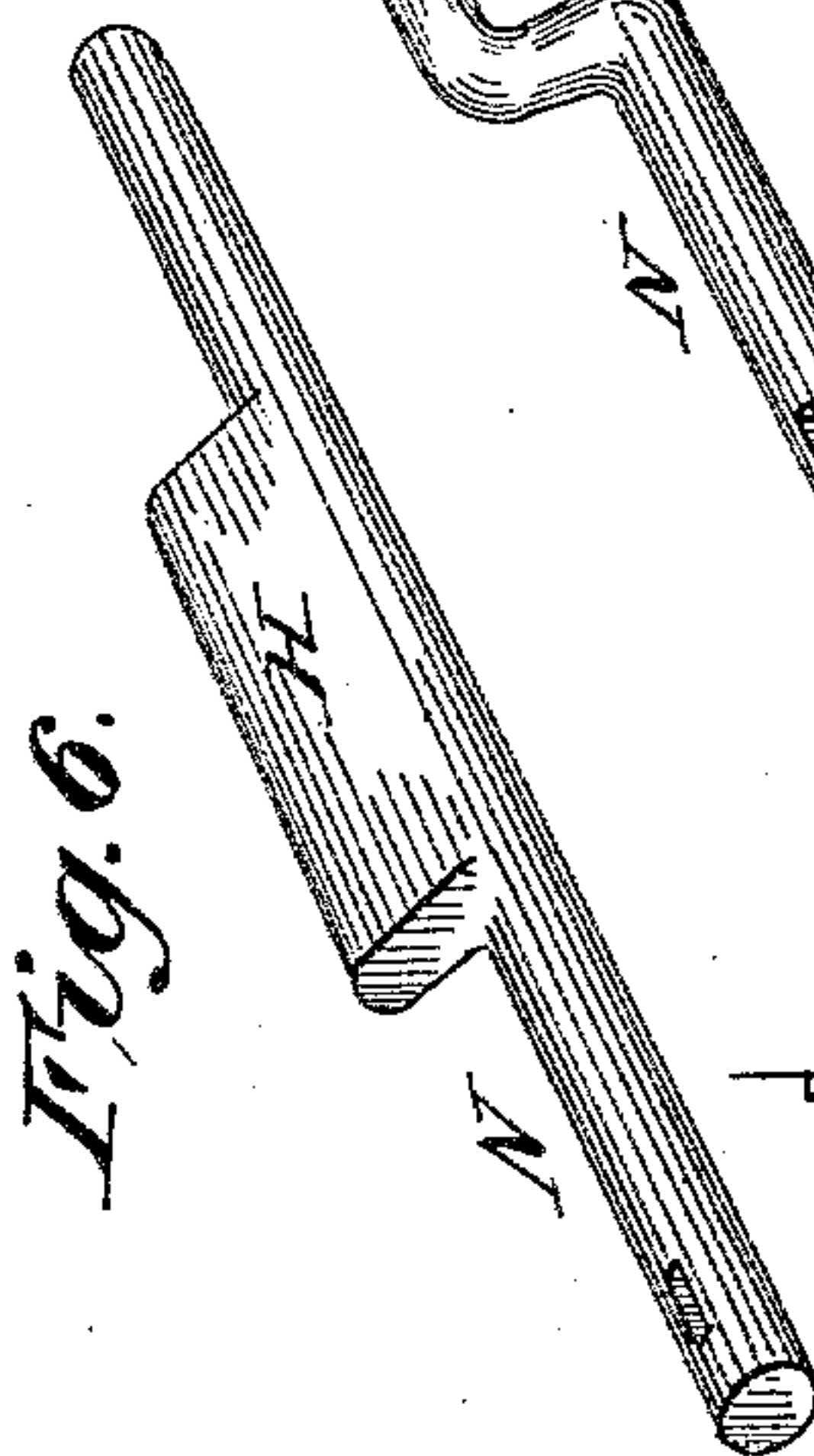


Fig. 6.

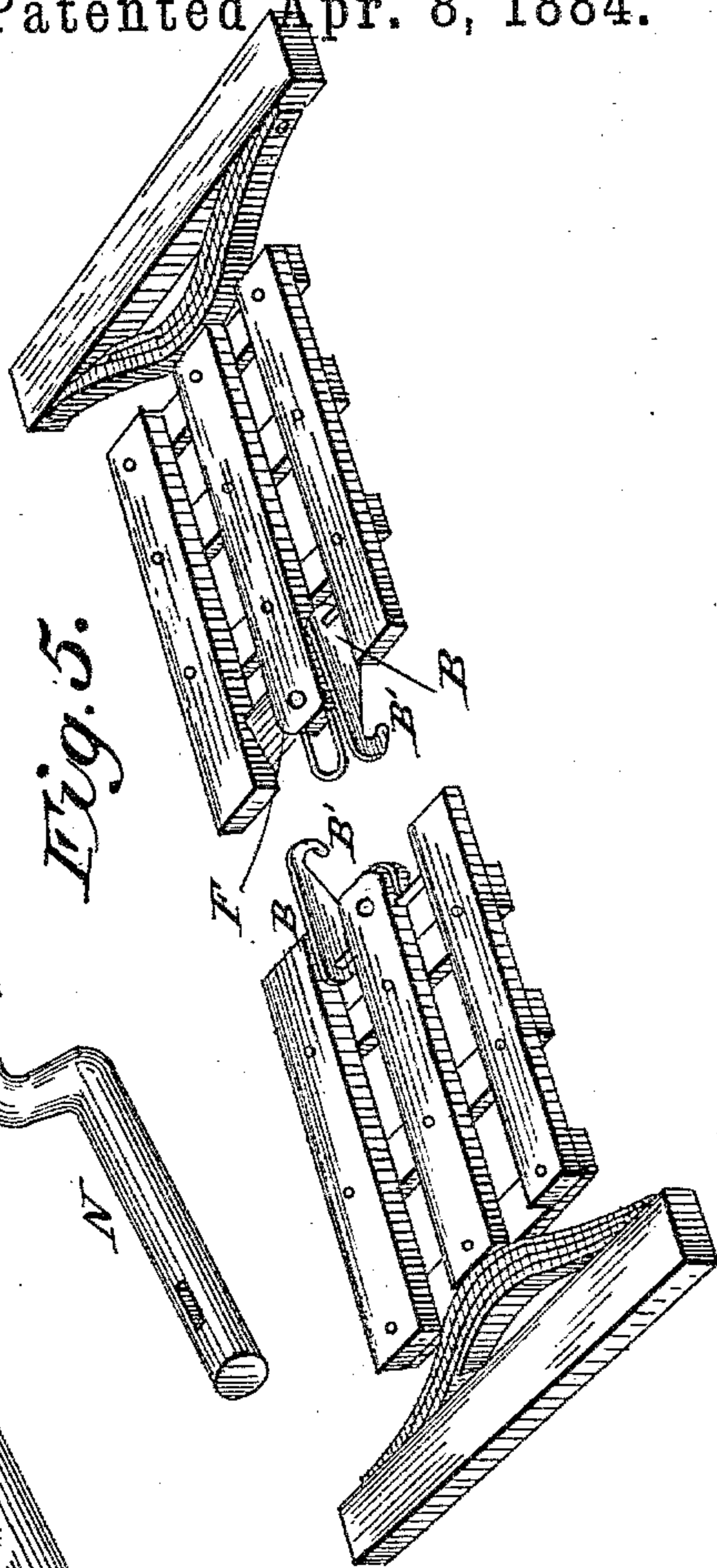
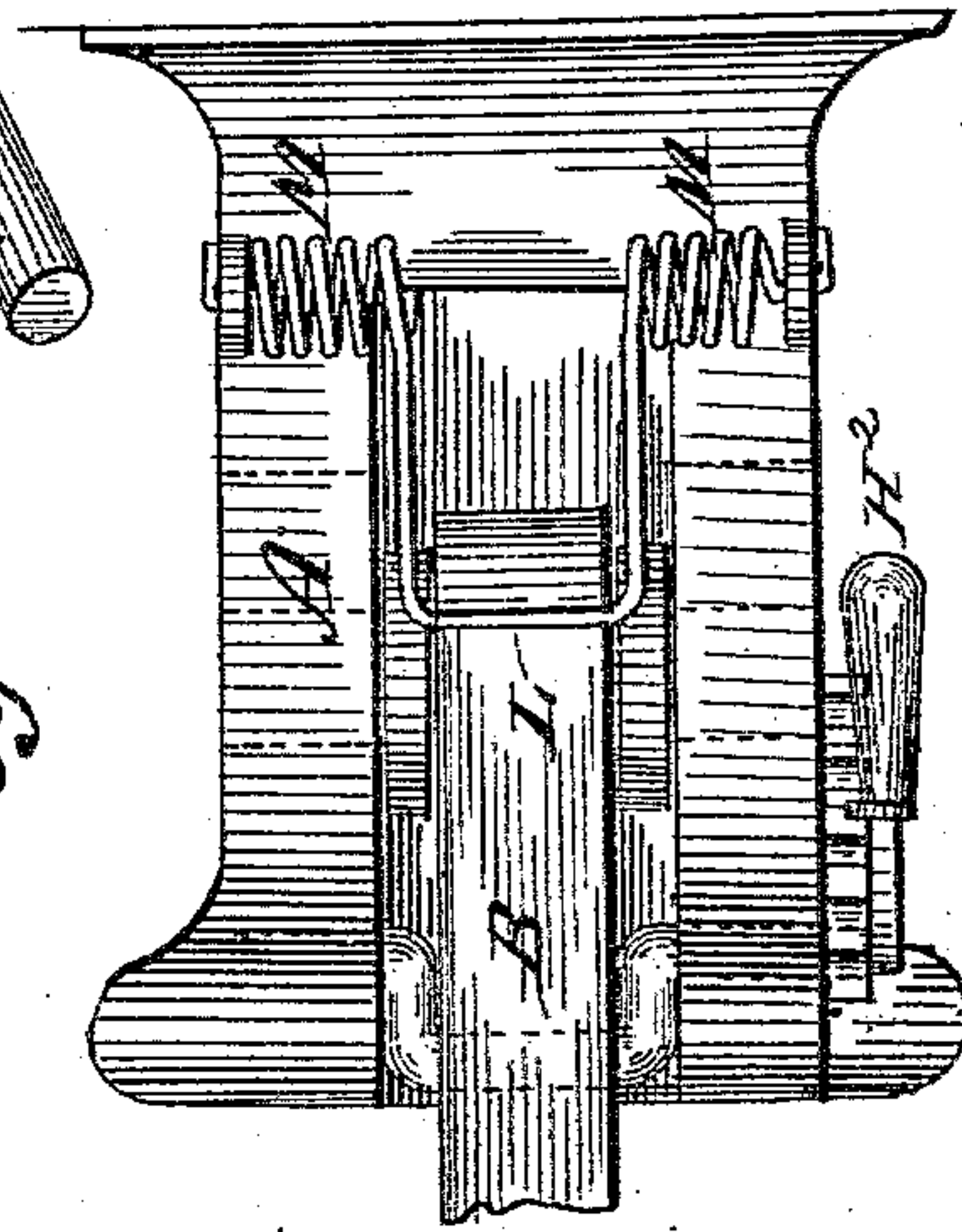


Fig. 5.

Fig. 4.



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UNITED STATES PATENT OFFICE.

THOMAS L. McKEEN, OF EASTON, PENNSYLVANIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 296,597, dated April 8, 1884.

Application filed January 28, 1884. (No model.)

To all whom it may concern:

Be it known that I, THOMAS L. McKEEN, a citizen of the United States, and a resident of Easton, in the county of Northampton and State of Pennsylvania, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side elevation of my improved automatic car-coupling. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a plan or top view. Fig. 4 is a similar view of one of the draw-heads, showing a modified construction of the spring. Fig. 5 is a perspective view of my invention as applied in some cases to passenger-cars. Fig. 6 is a perspective view of the device for adjusting the elevation of the coupling-hook; and Fig. 7 is a similar view, showing a modified construction of the same.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to so-called "automatic car-couplings" or "self-couplers;" and it consists in the improved construction and combination of parts of the same, which will be hereinafter more fully described and claimed.

In the accompanying two sheets of drawings, A and A' are the draw-heads, and B the coupling-hook, which is hung upon a bolt, C, inserted through oblong side slots, D, in one of the draw-heads.

E is a spring of any desired construction, one end of which is suitably fastened to the back part of the draw-head, while its free end bears against the inner end of the coupling-hook B. The latter is cut away to form a recess, F, on its under side between the hook B' and body B, so that the hook will not readily become disengaged from the transverse pin or bolt G, with which it engages when the draw-heads are coupled together, as shown in Fig. 2. The top part of the hook forms a loop or eye, b, into which a hook may be inserted by a person standing on the top or platform

of the car, or on one side of the same, when it is desired to uncouple the cars.

In order to properly adjust the elevation of the free end of the coupling-hook in relation to the opposite draw-head with which the coupling is to be effected, I employ the device shown in Figs. 6 and 7 of the drawings. This consists of a bar, N, which is inserted transversely through the lower front part of the draw-head, and provided with a lever or handle, H², for turning it. This bar N may either have a cam, as at H in Fig. 6, or it may be bent, as shown in Fig. 7 at H', which will answer the same purpose. The handle H² is adapted to engage a series of projections, I, on one side of the draw-head, by means of which it will be held firmly in its adjusted position; and it will be seen that by moving this handle the part H or H', according to which of the two constructions is adopted, bearing against the under side of the hook, will raise or elevate the projecting or outer end of the same, so as to bring it to the proper elevation to engage the draw-head opposite. In order to cause the coupling to be effected with absolute certainty, an inclined plane, F', is placed in the draw-head, leading from the mouth of the same up to the transverse bolt G, so that the hook, as it enters the draw-head, will ride up this incline until it strikes and slips over the transverse bolt, as shown in Fig. 2 of the drawings. The oblong slots D provide for the play forward and back of the bolt C in the sides of the draw-head, so that the hook will not become detached from the bolt G by the motion of the cars when these come together. In order to further prevent accidental uncoupling, an auxiliary spring, K, may be employed, if desired, bearing with its free end against the hook, so as to hold the head of the hook down against the bolt.

The spring E may either be a flat spring or leaf-spring, as shown in Figs. 1, 2, and 3; or it may be constructed as shown in Fig. 4, in which a spring is shown consisting of a central part or bail, L, and two coils, M M, fastened to the draw-head, with the projecting middle part or bail, L, bearing against the inner rounded end or shoulder of the coupling-hook. I do not, therefore, limit myself to any particular construction of this spring, so that its

arrangement is such that it will permit of the hook B being lifted up and thrown back when the cars are uncoupled.

5 In Fig. 5 on Sheet 2 of the drawings I have shown two coupling-hooks adapted to engage the beveled or inclined cross-bars F of their respective draw-heads. This construction is desirable where great strength is required, and where, therefore, one hook might not
10 answer the purpose. This coupling may be so constructed as to be used with a common link-and-pin coupling, if desired.

15 Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

The improved automatic car-coupling or self-coupler herein shown and described, con-

sisting of the draw-head A, having side slots, D, spring E, transverse bolt C, playing in the slots D, coupling hook B, recessed at F, cross- 20 bar N H, having handle H², and means for holding the same in its adjusted position, and draw-head A', provided with the transverse bolt F and inclined plane F', the whole constructed and combined to operate substan- 25 tially as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

THOMAS L. McKEEN.

Witnesses:

ARTHUR L. MORSELL,
AUGUST PETERSON.