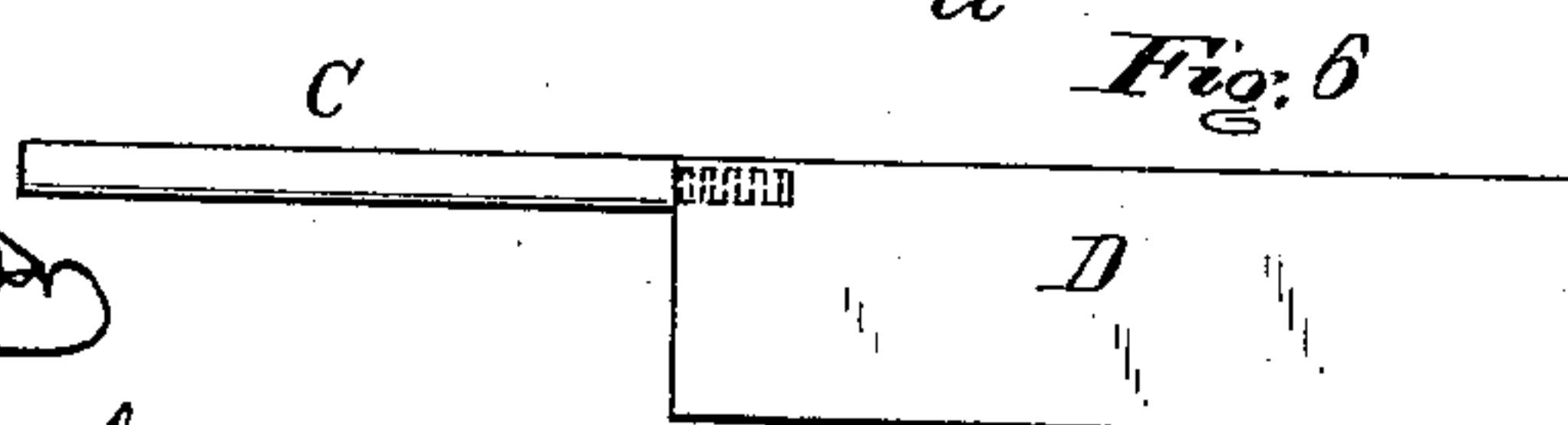
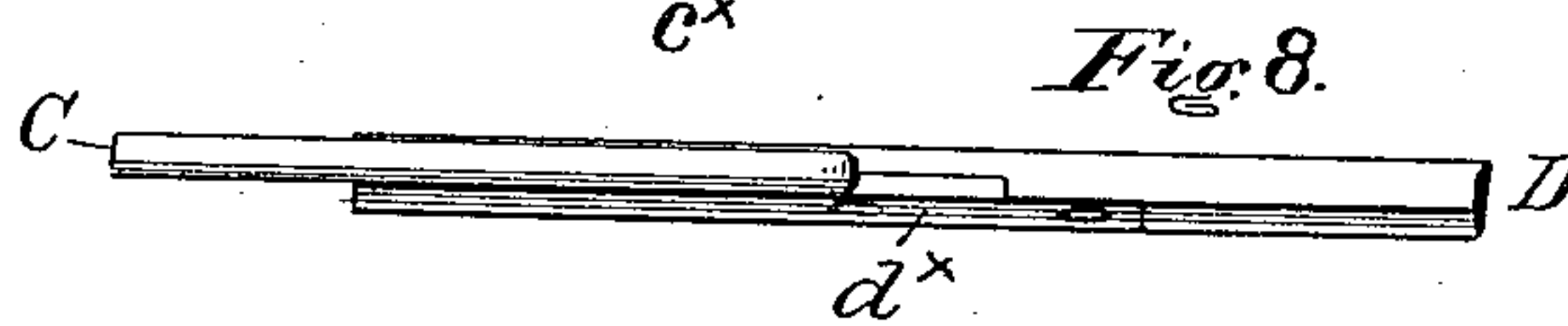
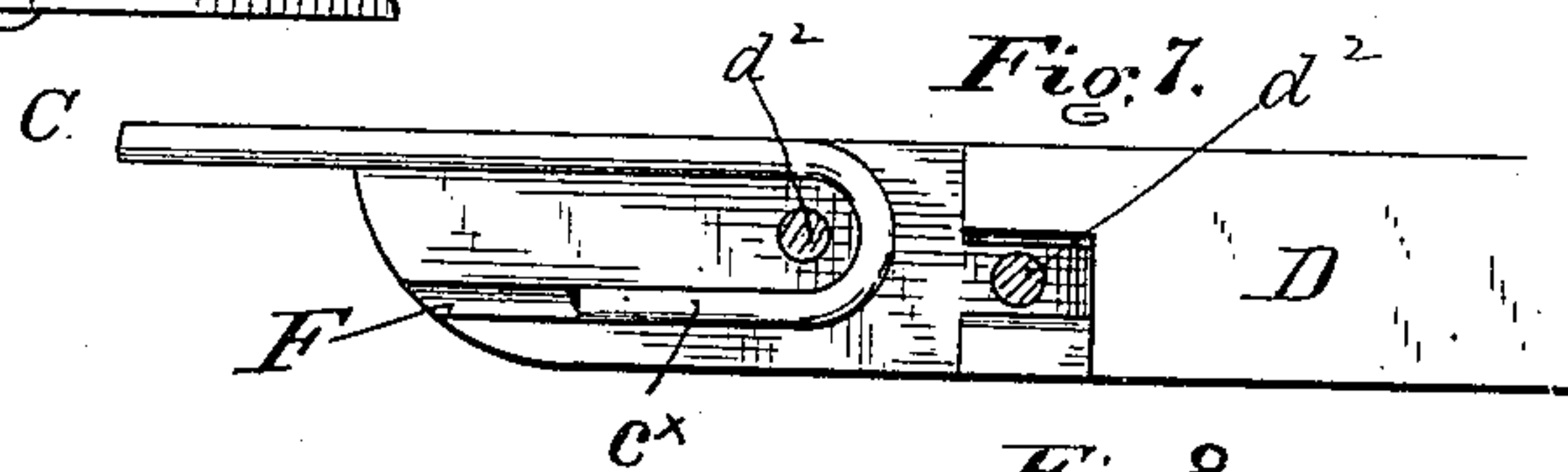
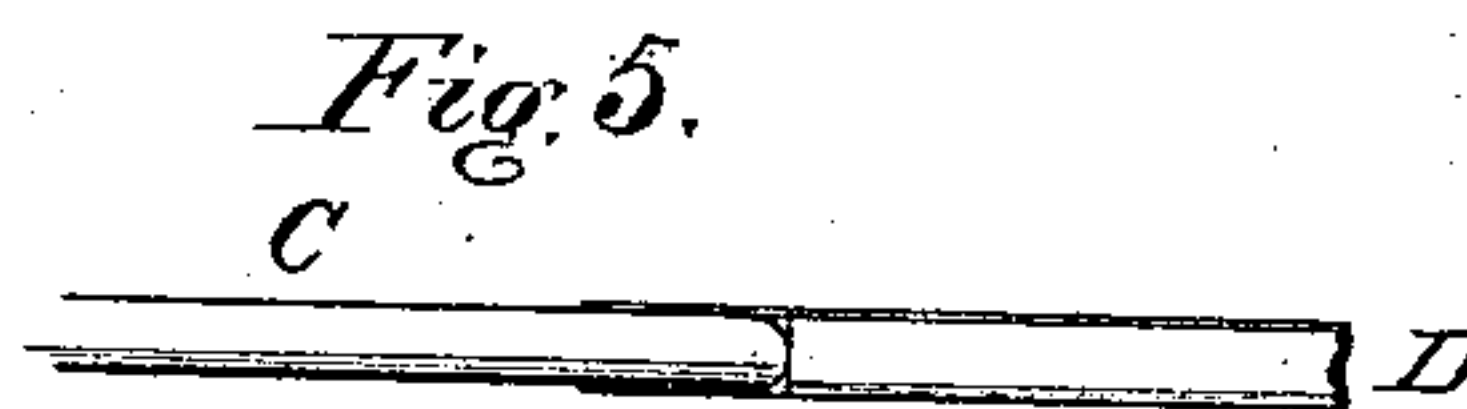
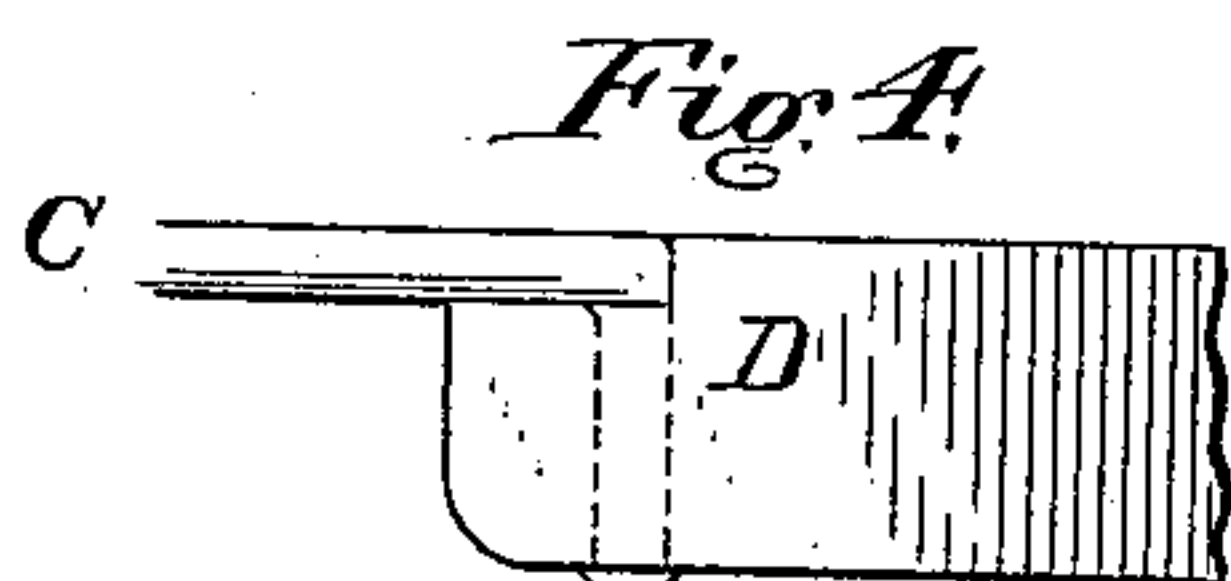
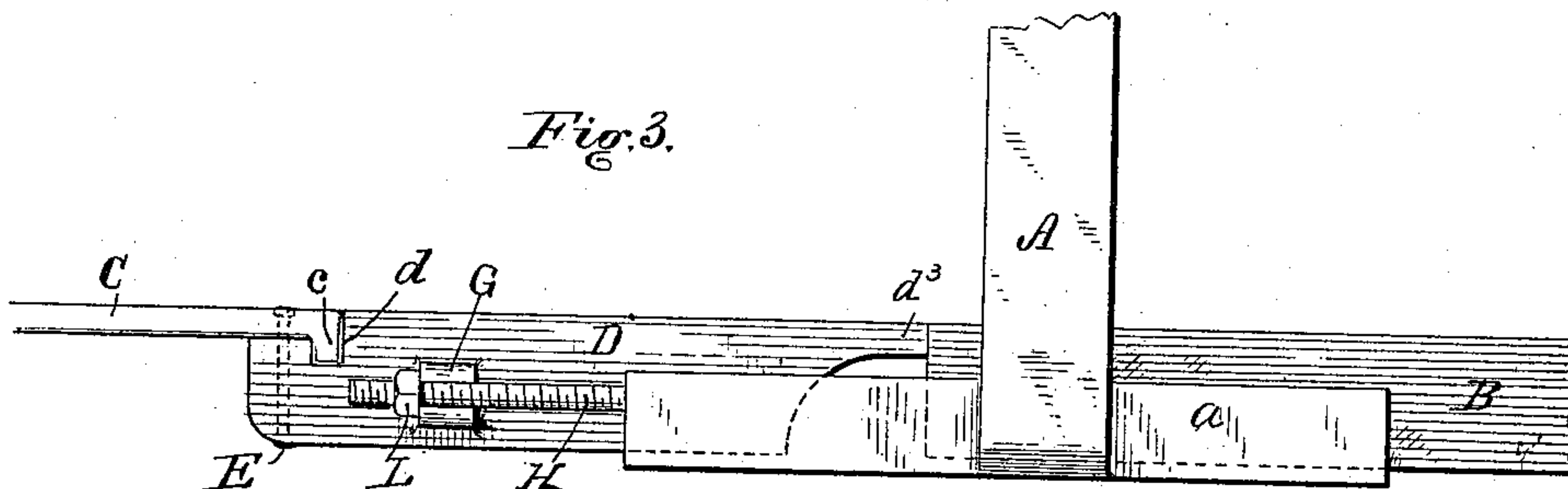
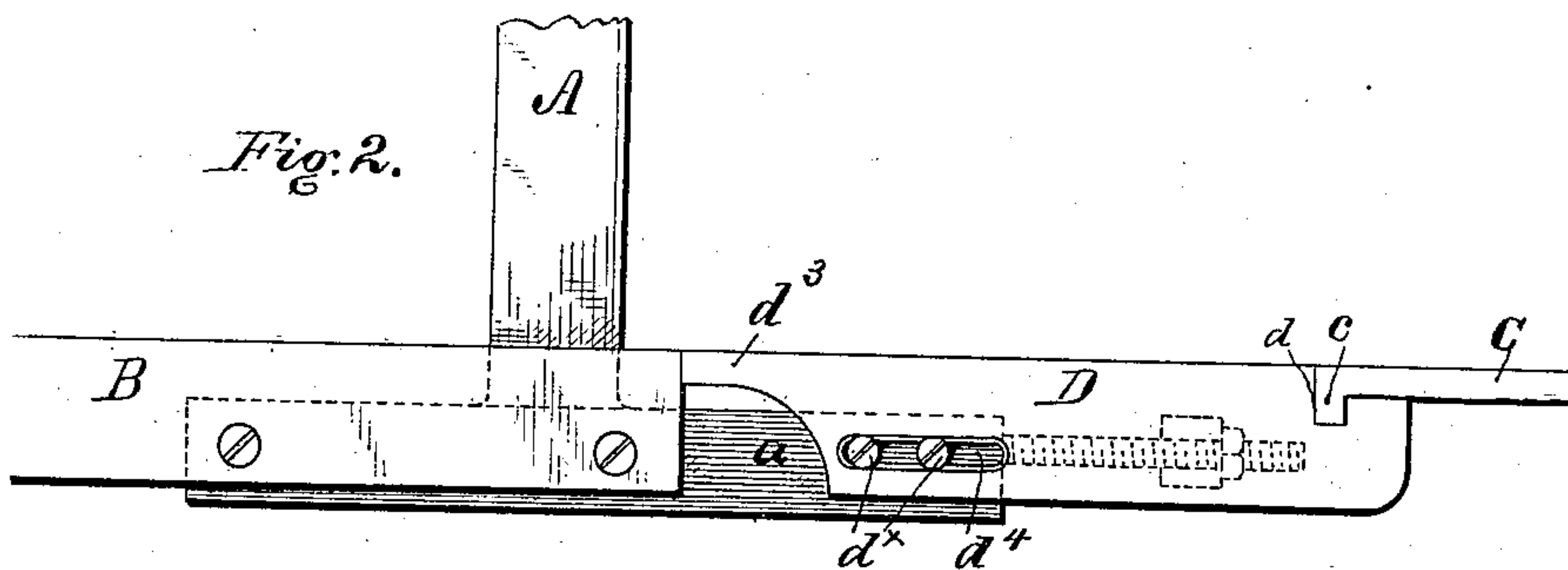
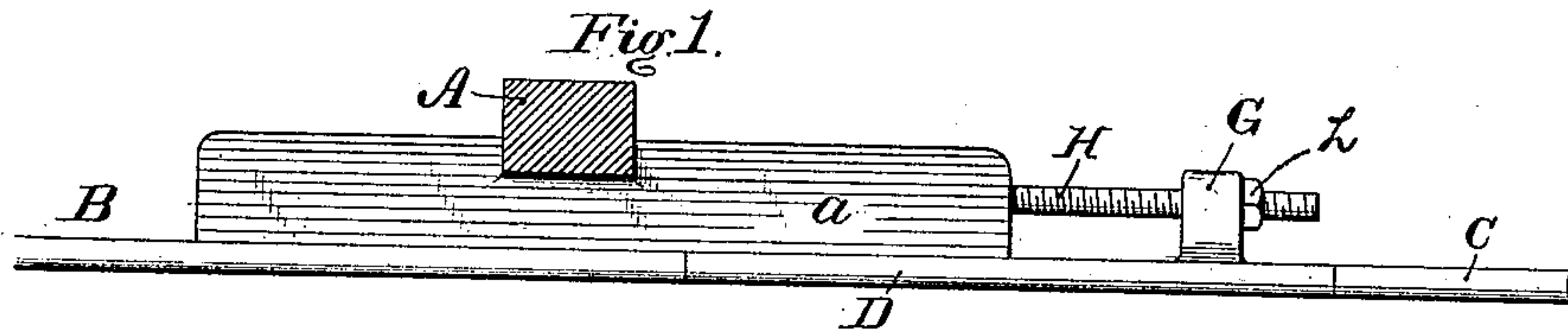


(No Model.)

S. G. NORTH.
STORE SERVICE APPARATUS.

No. 323,952.

Patented Aug. 11, 1885.



WITNESSES:

John Solley

J. Norman Dixon

Selden G. North
INVENTOR

By his Attorneys

Wm C. Macomber
Bonsall Taylor

UNITED STATES PATENT OFFICE.

SELDEN G. NORTH, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE
TRANSIT APPARATUS COMPANY, (LIMITED,) OF SAME PLACE.

STORE-SERVICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 323,952, dated August 11, 1885.

Application filed June 29, 1885. (No model.)

To all whom it may concern :

Be it known that I, SELDEN G. NORTH, a citizen of the United States, residing in the city and county of Philadelphia, and State of Pennsylvania, have invented an Improvement in Store-Service Apparatus, of which the following is a specification.

My invention relates in general to the class of store-service apparatus in which the traveling carrier is a basket or other goods-receiver suspended from a depending arm or hanger of a one or two wheeled truck, the wheel or wheels of which travel upon an elevated track composed of a single rail.

My invention relates specifically to the rails or tracks, and it comprehends an improved means of attaching or connecting a rail composed of a wire, wire rod, wire rope, or piece of metal or other suitable material, to a fixture—such as a track-bar or piece of permanent track—carried by, supported from, or otherwise connected with a forked suspender, a bracket, or similar permanent support, and it also comprehends an improved means of taking up the slack in the rail so attached.

Apparatus constructed substantially as in the accompanying drawings embodies a good form of my improvements.

In the drawings, Figure 1 is a top plan view of a track conveniently embodying my improvements, the supporting-suspender being in section. Fig. 2 is a side or face elevation of the same, and Fig. 3 a rear elevation of the same. Fig. 4 is an elevation, and Fig. 5 a top plan view, of a slightly-modified means for connecting the extremity of the wire rail with the connecting-plate. Fig. 6 is a view similar to Fig. 4 of another modified means of connection. Fig. 7 is a central vertical longitudinal elevation on the dotted line $x x$ of Fig. 8 of still another modified means of connection, which is represented also in top plan view in Fig. 8.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents a forked suspender, depending bracket, or kindred fixture with which a track is connected or from which it is suspended.

B is a track-bar or portion of a track composed in the form represented of a vertical

strip of metal connected with the base-flange a of the suspender A.

C is a portion of a wire rail or track which is a continuation of the track-bar, and which it is the object of my invention to conveniently secure to the track-bar, the suspender, or other fixture.

D is a connecting-plate, being preferably a vertical metal flange or web interposed between the track-bar B and the wire rail C, and forming a continuous connection of both. The track-bar B, connecting-plate D, and rail C therefore together form a continuous rail or track for the wheel of the carrier to run upon.

The terminal extremity of the wire rail C is adapted to be connected with the connecting-plate D in any preferred manner, and conveniently by the terminal extremity of the wire rail being turned down to form a heel or other angular extension, c , which is entered within a hole, d , seat, recess, slot, or kindred opening formed in the connecting-plate D, as shown in Figs. 2 and 3 of the drawings.

The wire rail, after having been applied as above described, may be made fast by soldering or by the application of a rivet, E, screw, bolt, or kindred fastening, as represented in the drawings; or, again, the rail may be secured after the manner represented in Figs. 4 and 5—that is to say, the hole for the hook of the rail may be extended completely through the connecting-plate, and the heel of the rail be riveted beneath it; or, again, the rail may be secured by simply providing its extremity with a screw-thread and screwing it into the end of the connecting-plate, as shown in Fig. 6; or, again, indeed, the extremity of the rail may be turned back to form a hook, c^x , which is adapted to be engaged within a curved seat, F, formed in connection with the two members of a connecting-plate, which is made sectional, as represented in Figs. 7 and 8—that is to say, made with a movable side plate, d^x , adapted to be secured by screws d^2 , or kindred fastening, and which in Fig. 7 is shown removed.

The foregoing and many other constructions may, with equal profit, be resorted to, as any mechanic will readily understand, the mode of fastening the end of the wire rail not being of the essence of the invention.

The connecting-plate D is provided with a laterally-projecting slotted lug G, through the slot of which passes a threaded adjusting-rod, H, longitudinally extending from the base-flange of the forked suspender or other fixed support for the rail.

Beyond the slotted lug a nut, *h*, is applied, the said nut being adapted to abut against the slotted lug, and, when tightened up on the rod, to cause the movement of the connecting-plate and its attached rail toward the track-bar, such movement being intended for the taking up of the slack in the rail, and being rendered possible by the filing off of the extremital portion *d*³ of the connecting-plate, so as to permit of the approach of said plate with respect to the track-bar B, the said extremital portion *d*³ of the plate, to which an arrow in the drawings points, being preferably made of less vertical depth than the major portion, so as to facilitate such filing off. In order to permit of this movement, and also to aid in the fixed retention of the connecting-plate in given adjusted positions, the said connecting-plate is provided with a longitudinally-extending slot, *d*⁴, through which tightening-screws, *a*^x, which thread within the base-flange, pass. This capability of adjustment is the most important feature of the invention, as it is in practice found to be almost impossible to cut the wires which constitute the rails to precisely the required length. If the wires, therefore, happen to be too short, or happen in use to stretch or sag, it is possible, by the employment of my invention, to adjust them to take up the slack.

As already stated the terminal extremity of the rail can be secured by solder alone, and, when secured by other means than solder, it is usually preferable to fill up the interstices so as to render the wire rail and the connecting-plate evenly continuous.

While I have described the specific construction shown in the drawings as a good construction, it is obvious that, in mechanical details, it may be varied. Thus, for instance, while it is important that the threaded adjusting-rod should be connected with the track-bar, as it is shown as being through the inter-vention of the base-plate, yet it is obvious that the said rod may be connected direct with the said track-bar, or with the forked suspender, and not with the base-plate. It is also obvious that, while the slotted lug is one of the most convenient and cheapest devices that can be used as an abutment for the nut which threads upon the adjusting-rod, yet any other form of abutment or bearing can be substituted in its stead. It is also obvious that, if desired, the adjusting-rod may

be connected with the connecting-plate and the slotted lug or abutment with the track-bar. It is also obvious that the connection of the connecting-plate by means of the slot and tightening-screws is not an essential of the construction, although it is a cheap and good form.

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

1. The combination, in a store-service apparatus, of a rail, a continuation of the same, and means for causing the rail and its continuation to approach, and for maintaining them in their approximated relation.

2. In a store-service apparatus, the combination of a track-bar or fixed portion of a track, a wire rail forming a continuation thereof, and means for tightening up the wire rail with respect to the fixed portion of the track, and for maintaining it in position when tightened up, substantially as set forth.

3. In a store-service apparatus, the combination of a track-bar or fixed portion of a track, a wire rail forming a continuation thereof, and connected with a connecting-plate which forms a continuation both of the track-bar and of the wire rail, and means for tightening up the connecting-plate and its connected wire rail with respect to the track-bar, and for maintaining them in position when tightened up, substantially as set forth.

4. In a store-service apparatus, the combination of a track-bar or fixed portion of a track, a wire rail forming a continuation thereof and connected with a connecting-plate which forms a continuation both of the track-bar and of the wire rail, a suspender or bracket for sustaining the track-bar and its connecting-plate, a slotted lug connected either with the connecting-plate or with the track-bar, and a threaded adjusting rod and nut connected with either the track-bar or the connecting-plate and operating in connection with the slotted lug, substantially as described.

5. In a store-service apparatus, the combination of the track-bar, the forked suspender bracket or support, the longitudinally-adjustable connecting-plate, a portion of which is adapted to be filed or dressed off, the wire rail connected with said connecting-plate, the threaded adjusting rod and nut, and the lug or abutment, substantially as and for the purposes set forth.

In testimony whereof I have hereunto signed my name this 23d day of June, A. D. 1885.

SELDEN G. NORTH.

In presence of—

J. BONSALE TAYLOR,
WM. C. STRAWBRIDGE.