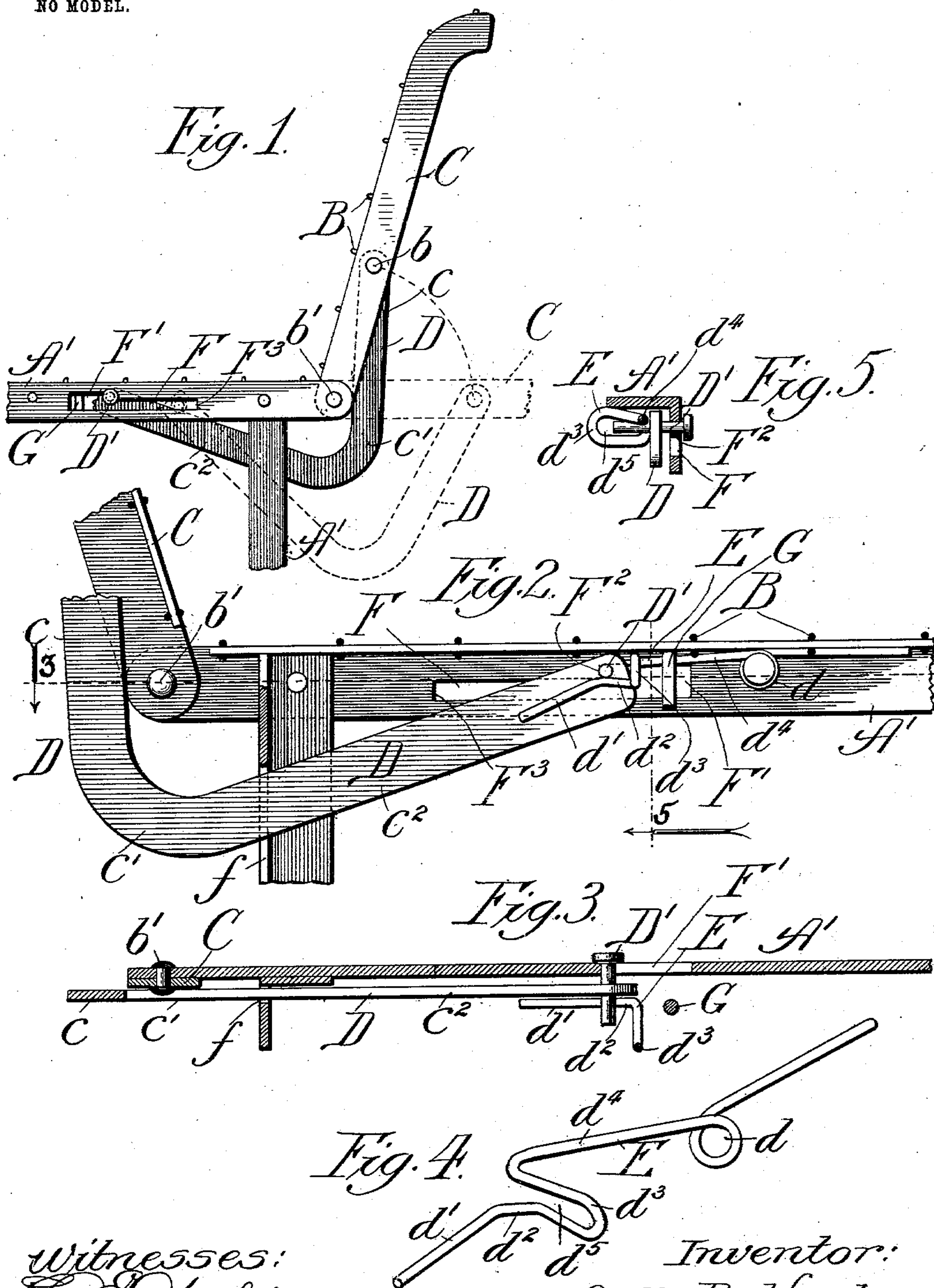
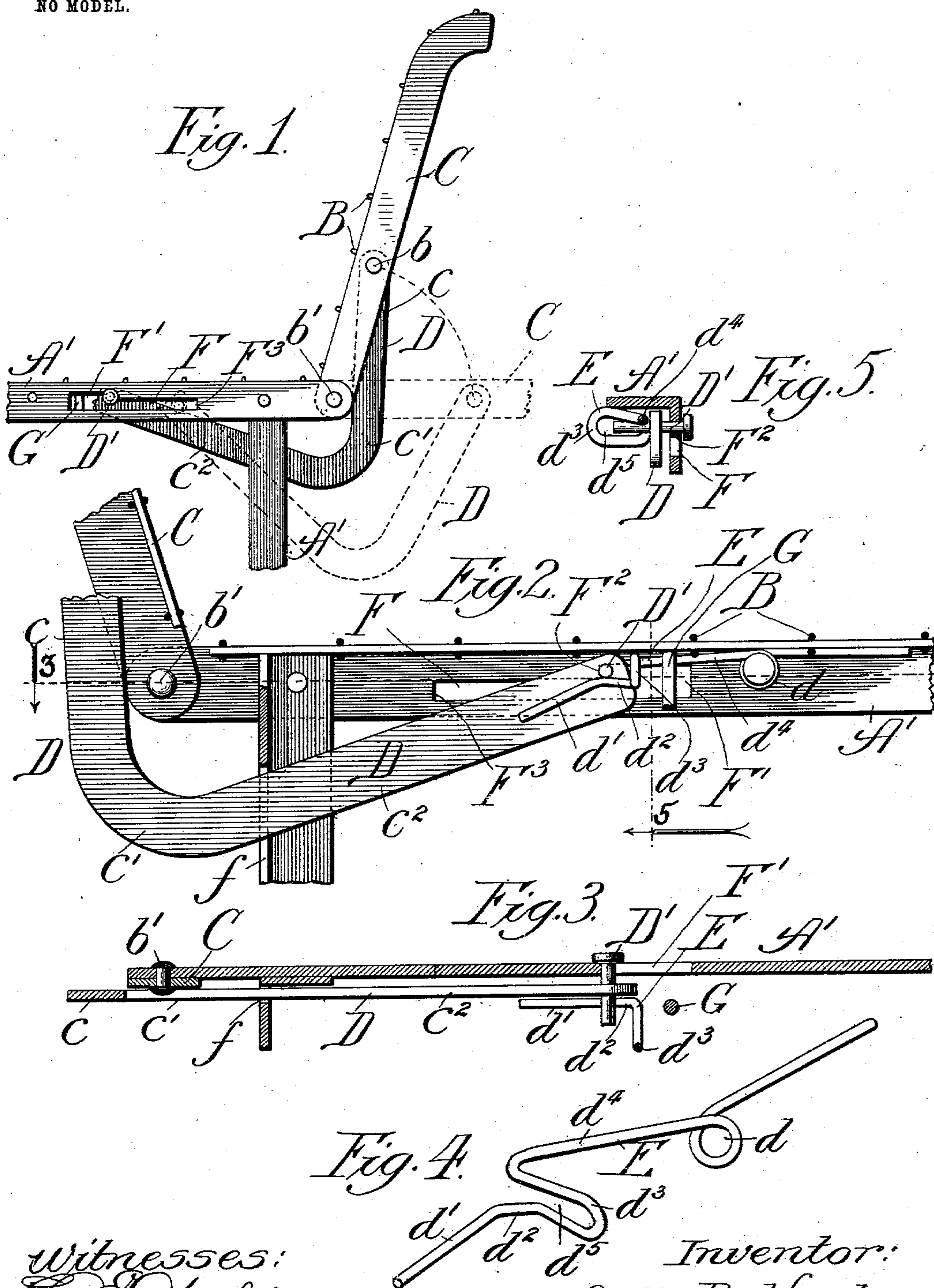
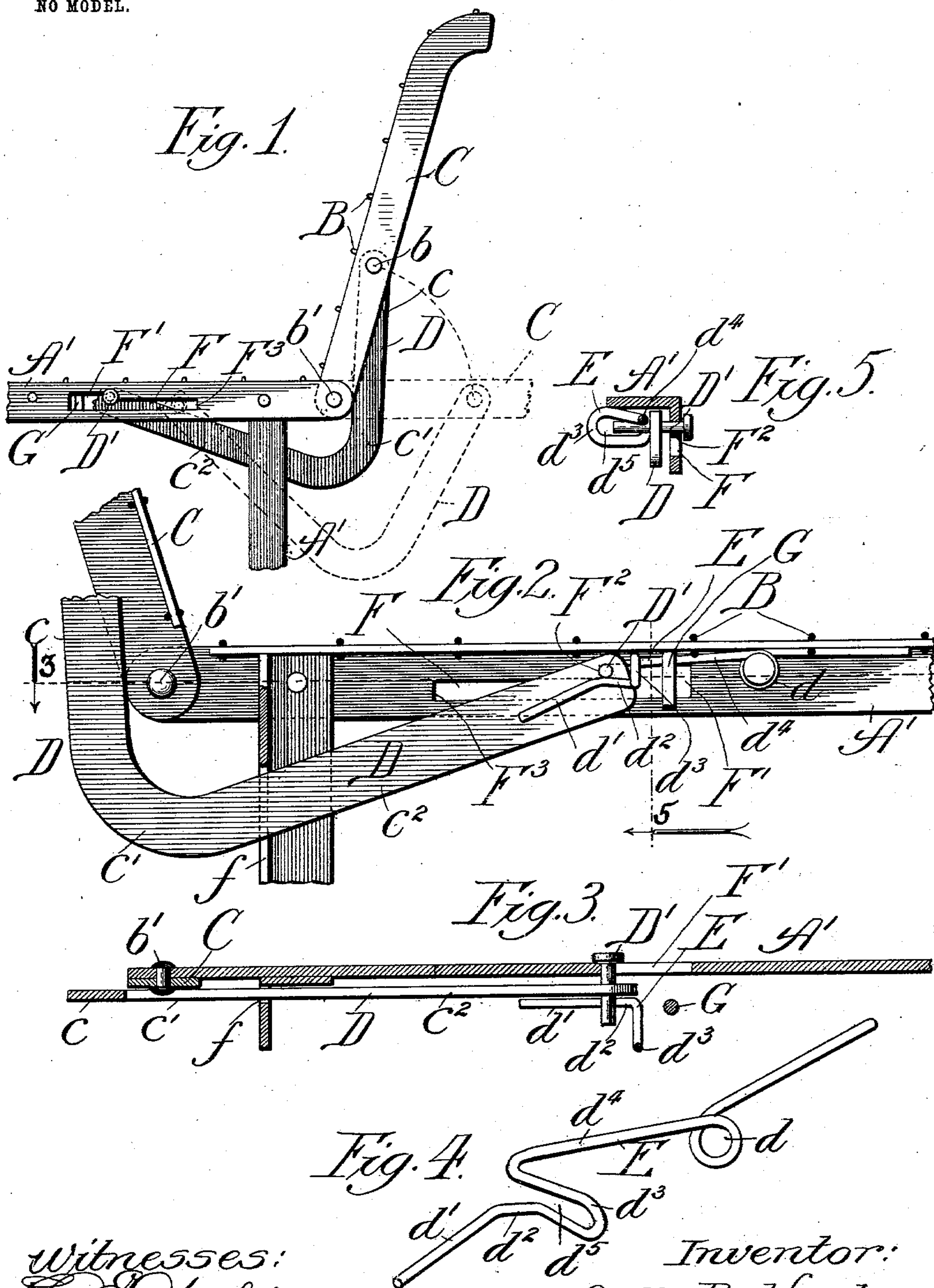
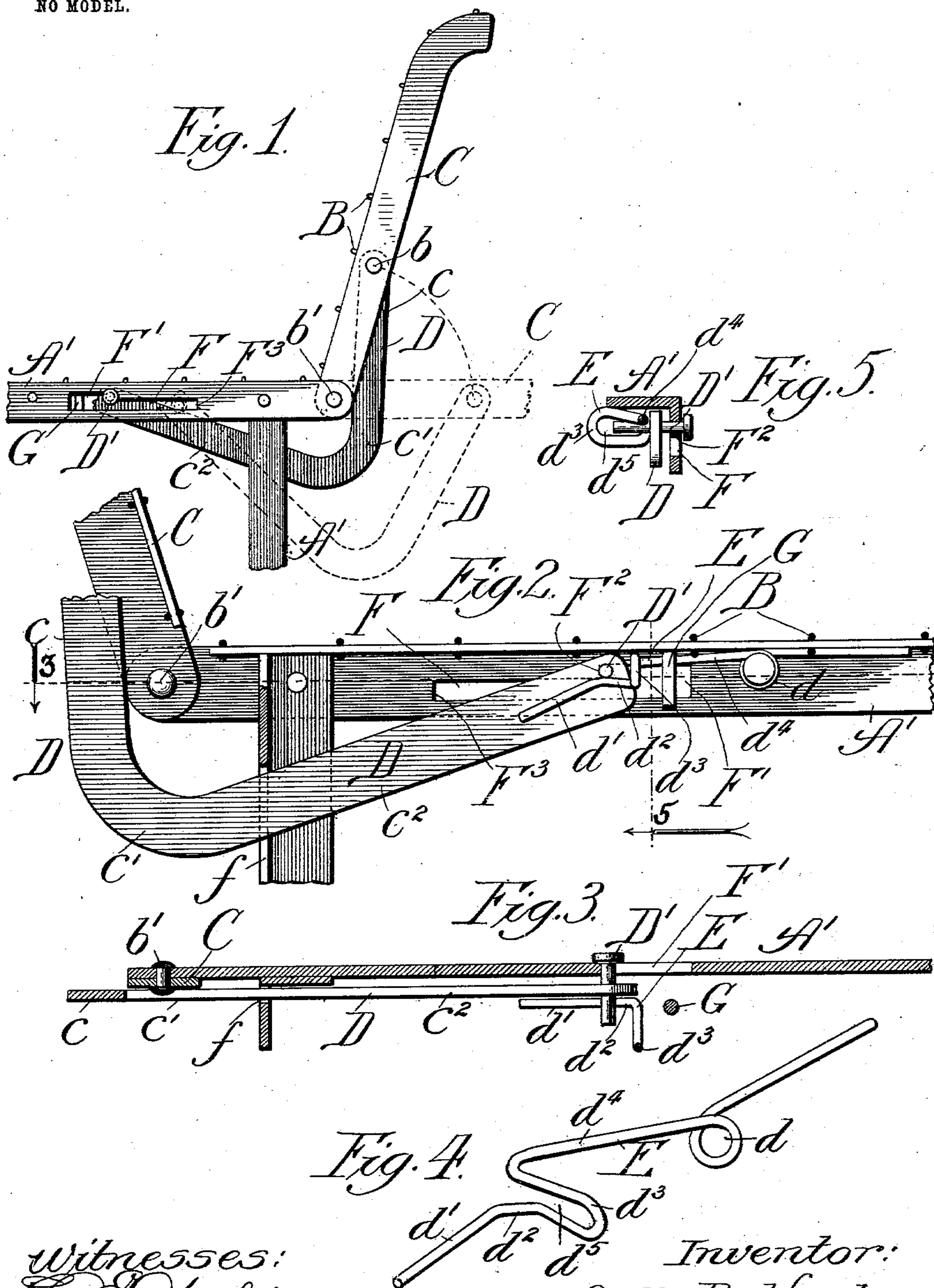
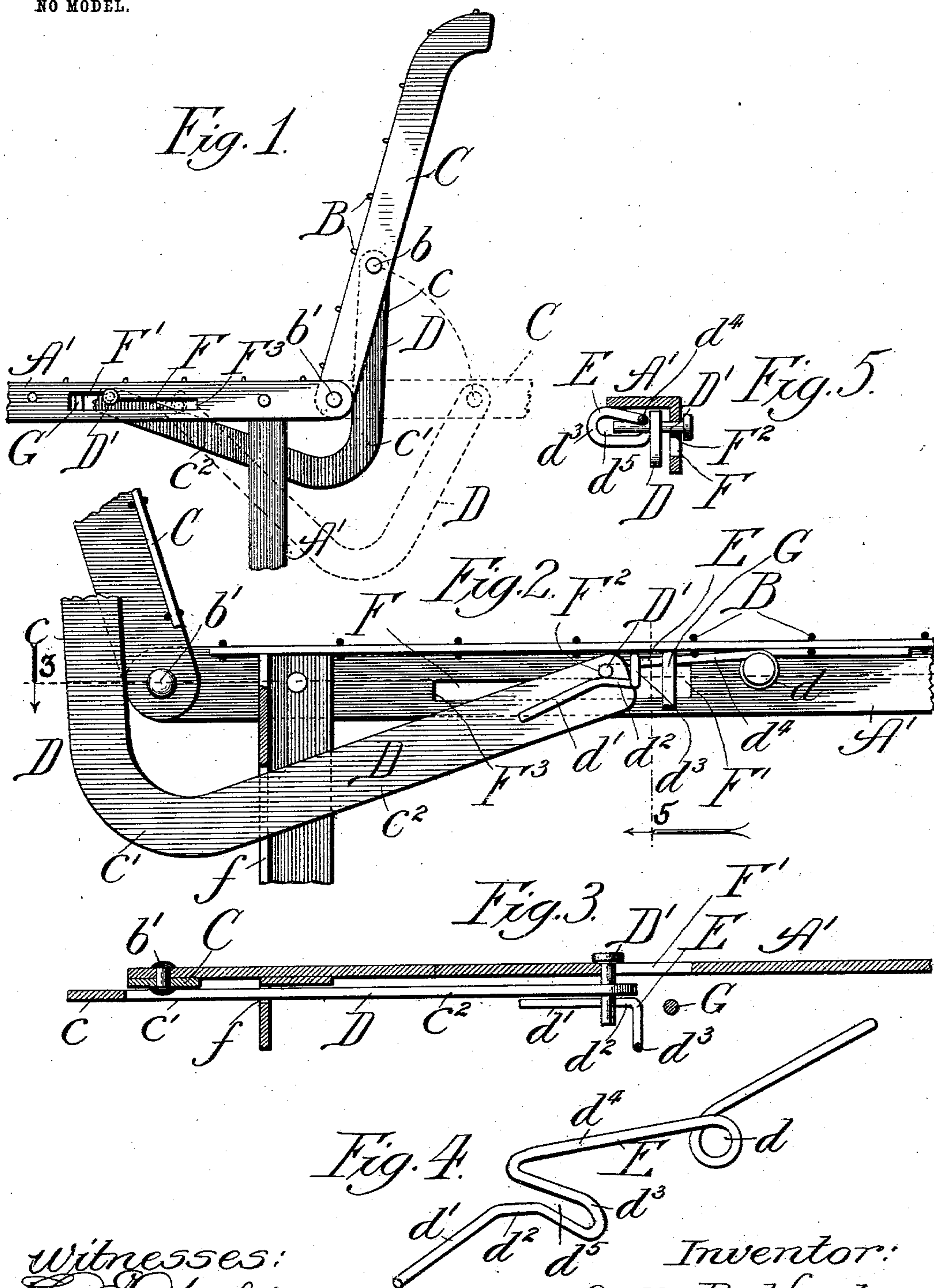


O. R. HUNT.

LEAF SUPPORT FOR SOFA BEDS, &c.

APPLICATION FILED DEC. 13, 1902.

NO MODEL.



Witnesses:
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UNITED STATES PATENT OFFICE.

OZELLO R. HUNT, OF KENOSHA, WISCONSIN, ASSIGNOR TO THE SIMMONS MANUFACTURING COMPANY, OF KENOSHA, WISCONSIN, A CORPORATION OF WISCONSIN.

LEAF-SUPPORT FOR SOFA-BEDS, &c.

SPECIFICATION forming part of Letters Patent No. 740,567, dated October 6, 1903.

Application filed December 13, 1902. Serial No. 135,047. (No model.)

To all whom it may concern:

Be it known that I, OZELLO R. HUNT, a citizen of the United States, residing at Kenosha, in the county of Kenosha and State of Wisconsin, have invented a new and useful Improvement in Leaf-Supports for Sofa-Beds, &c., of which the following is a specification.

My invention relates particularly to automatically-acting leaf-supports for the rear leaves or backs of sofa-beds.

My present invention is in the nature of an improvement upon the construction shown in my pending application, Serial No. 123,703, filed October 22, 1902; and the primary object of the invention is to make provision whereby there shall be less liability of releasing the leaf by carrying the same too far in elevating it to the standing position.

In the accompanying drawings my invention is illustrated in connection with a main frame and rear leaf or back of a sofa-bed, though it will be obvious that the invention may be applied to other articles of furniture of a similar nature and to positions of analogous nature in articles of furniture of the same general class.

In the drawings, Figure 1 is a broken view, in side elevation, of a sofa-bed equipped with my improvement; Fig. 2, a broken vertical section looking at the inside of the end frame shown in Fig. 1; Fig. 3, a broken plan section taken as indicated at line 3 of Fig. 2; Fig. 4, a perspective view of a spring employed, and Fig. 5 a sectional view taken as indicated at line 5 of Fig. 2.

In the preferred construction, A' represents an end standard of the main frame of a sofa-bed; B, a wire fabric applied to the seat and back of the sofa-bed; C, a back or rear leaf of the sofa-bed; D, a link pivotally connected at one end with the back C and provided at its free end with a stud D', and E a spring which serves in the locking and releasing of the free end of the link.

It will be understood that ordinarily each end of the sofa-bed is provided with this equipment. Assuming the leaf C to be in the standing position shown in Fig. 1, the link D has pivotal connection with the leaf at a point b some distance above the pivot b' of the leaf.

The link has a substantially vertical portion c, a forwardly-curved portion c', and an upwardly and forwardly extending portion c'', which bears a stud D'. The end standard A' is provided at its horizontal member with a horizontal slot F, having an enlargement or offset F' at its front upper portion, affording a stationary locking-shoulder F'', corresponding with the standing position of the leaf, the front end of the slot serving as a stationary locking-shoulder F'', corresponding with the horizontal position of the leaf. The spring E is preferably formed of wire and is provided near one end with a loop or eye d, by which it is secured to the horizontal frame member of the main frame by a rivet, the adjacent end of the spring bearing beneath the horizontal flange of said frame member, as indicated in Fig. 2. The spring has an inclined rear end portion d', which crosses the slot F in the manner shown in Fig. 2, and adjacent to the portion d' is a substantially horizontal portion d'', from which branches a lateral loop d'', located in a vertical plane and having its upper member connected with the portion d' of the spring. The loop d'' affords a space d'' of slightly less diameter than the stud D'. The stud D' extends through the guide-slot F and has its inner end resting upon the rear portion of the spring, the outer portion of the stud being in engagement with the shoulder F''. Preferably the rear vertical member of the end standard of the frame is an angle-iron and has its intumed flange provided with a slot f, serving as a guide for the link D.

G represents a stud or guide-pin depending from the horizontal flange of the angle-iron forming the top of the end standard A' and which aids in preventing displacement of the spring E.

The operation will be readily understood. In the standing position of the leaf the spring E serves to hold the front extremity of the link D in an elevated position, thereby causing the stud D' to engage the shoulder F''. This prevents the back of the leaf from dropping, as is evident. When it is desired to release the back and lower it to the horizontal position, the back is moved forward somewhat from the position shown in full lines in

Fig. 1 until the stud D' is forced through the recess or space d^5 of the loop d^3 , thereby automatically releasing the link and permitting it to fall upon the bottom of the slot F.

5 When the leaf is lowered, the stud rides upon the lower wall of said slot, thereby forcing the rear portion of the spring upwardly until it is cleared by the stud. When the leaf reaches the horizontal position, the stud en-
10 gages the rear end of the slot, as indicated by dotted lines in Fig. 1. When the leaf is again raised to the standing position, the inner extremity of the stud D' rides upon the upper surface of the extremity of the spring,
15 so that the outer extremity of the stud is forced again into locking engagement with the shoulder F². Should the leaf C be accidentally moved too far in elevating it, thereby imparting to it an accidental supplemental
20 movement beyond the standing position, the stud will engage the loop d^3 of the spring with a slight click, thereby preventing release. To effect a release, it is necessary to exert more force than ordinarily would come
25 from a careless or accidental movement of the leaf.

While my invention was devised for use in the situation illustrated, it is evident that it may be employed in analogous situations.
30 For instance, it may be employed to connect the back to the seat-frame of a sofa-bed regardless of whether or not the seat-frame is fixed immovably to its supports or standards. Moreover, it will be understood that the ar-
35 rangement of the parts may be altered or reversed without departing from my invention.

Minor changes in details of construction within the spirit of the appended claims may be made. Hence no undue limitation should
40 be understood from the foregoing detailed description.

What I regard as new, and desire to secure by Letters Patent, is—

1. The combination of two frame members
45 hinged to swing with relation to each other, one of said members being provided with a guide and locking-shoulder, a link connected with the other frame member and provided near its free end with means for engaging
50 said guide and shoulder, and a yielding member serving automatically to lock and release the free end of said link and having a yielding stop for the link which serves to prevent accidental release under slight pressure and
55 to permit release under greater pressure, for the purpose set forth.

2. The combination of two frame members hinged to swing with relation to each other, one of said members having a guide and lock-

ing-shoulder, a link pivotally connected at 60 one end with the other member and provided at its free end with means for engaging said guide and shoulder and a spring on the guide-equipped member having a portion crossing
65 said guide and provided with a yielding stop, and a stud carried by said link and riding upon said spring during the movement of said link in one direction, said stop yielding to permit the passage of said stud under pres-
70 sure and said stud passing beneath said spring during the return movement of said link, for the purpose set forth.

3. The combination of two frame members hinged to swing with relation to each other, one of said members being equipped with a 75 guide and locking-shoulder, a link connected at one end with the other member and provided at its free end with a stud for engaging said guide and shoulder, a stud on the opposite side of said link, and a spring hav-
80 ing an inclined portion crossing said guide and a lateral loop adjacent thereto, said last-named stud riding upon said spring and passing through said loop in one direction of move-
85 ment of the link and passing beneath said spring in the other direction of movement of said link, for the purpose set forth.

4. The combination of two frame members hinged to swing with relation to each other, one of said members having an elongated guide 90 lying in its own plane and provided at its upper portion with a locking-shoulder, a link pivotally connected with the other member and provided at its free end with a stud engaging said guide, a spring connected with
95 the guide-equipped member and having an inclined portion crossing said guide, and a lateral loop adjacent to said inclined portion, and a lateral stud upon said link of slightly greater diameter than said loop, said stud rid-
100 ing upon said spring and capable of being forced through said loop in one direction of movement of said leaf and passing beneath said spring during the opposite movement of
105 said link, for the purpose set forth.

5. In means of the character described, the combination with a locking-link provided with a lateral stud, of a wire spring having an inclined portion lying in one plane and a lateral loop lying in a plane at substantially
110 right angles to said first-named plane, through which said stud may be forced, for the purpose set forth.

OZELLO R. HUNT.

In presence of—

I. HEISLAR,
ALBERT D. BACCI.