

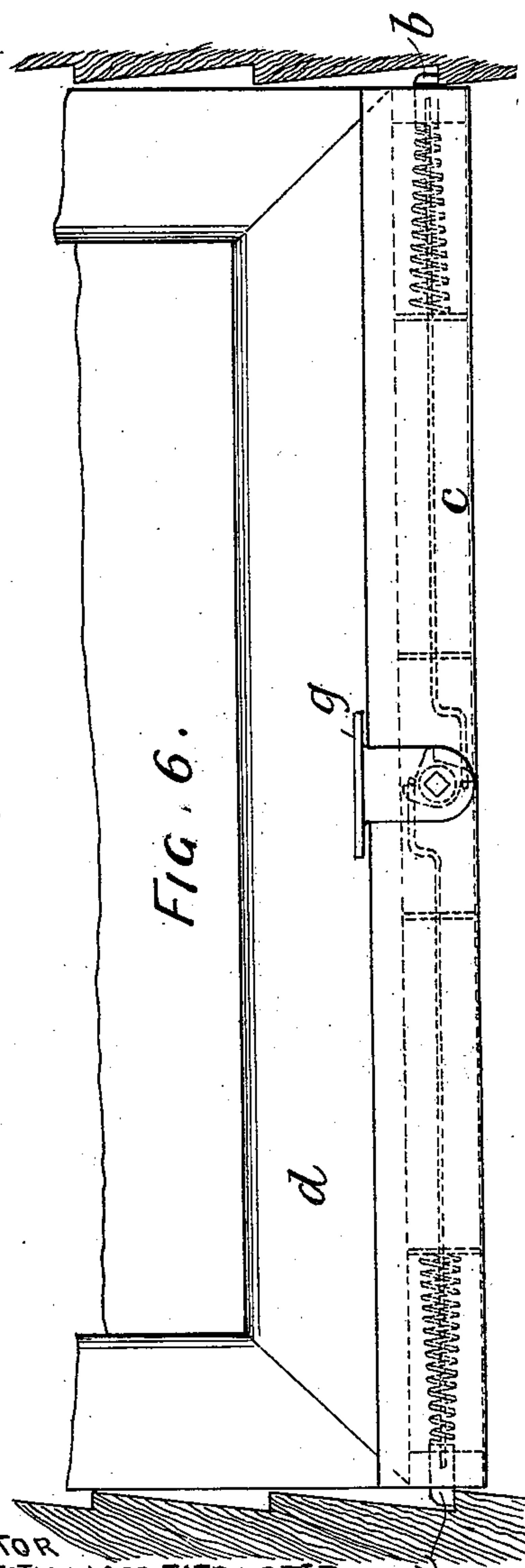
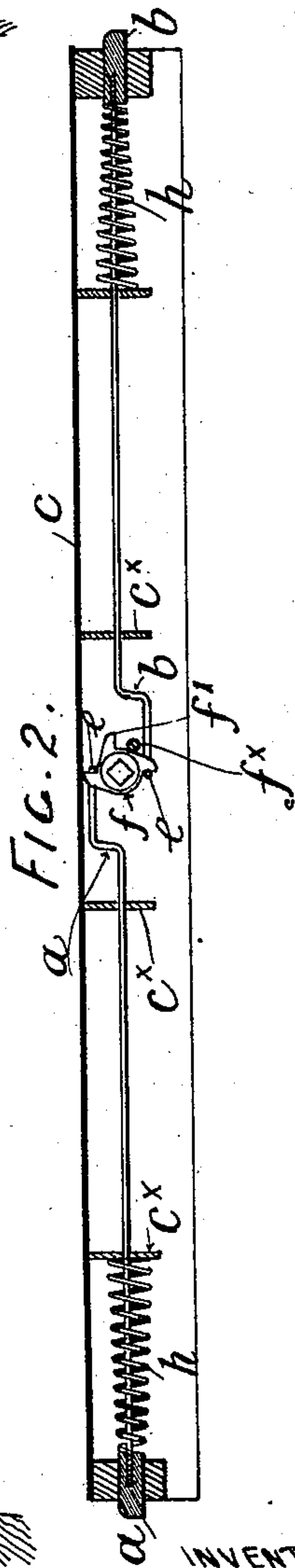
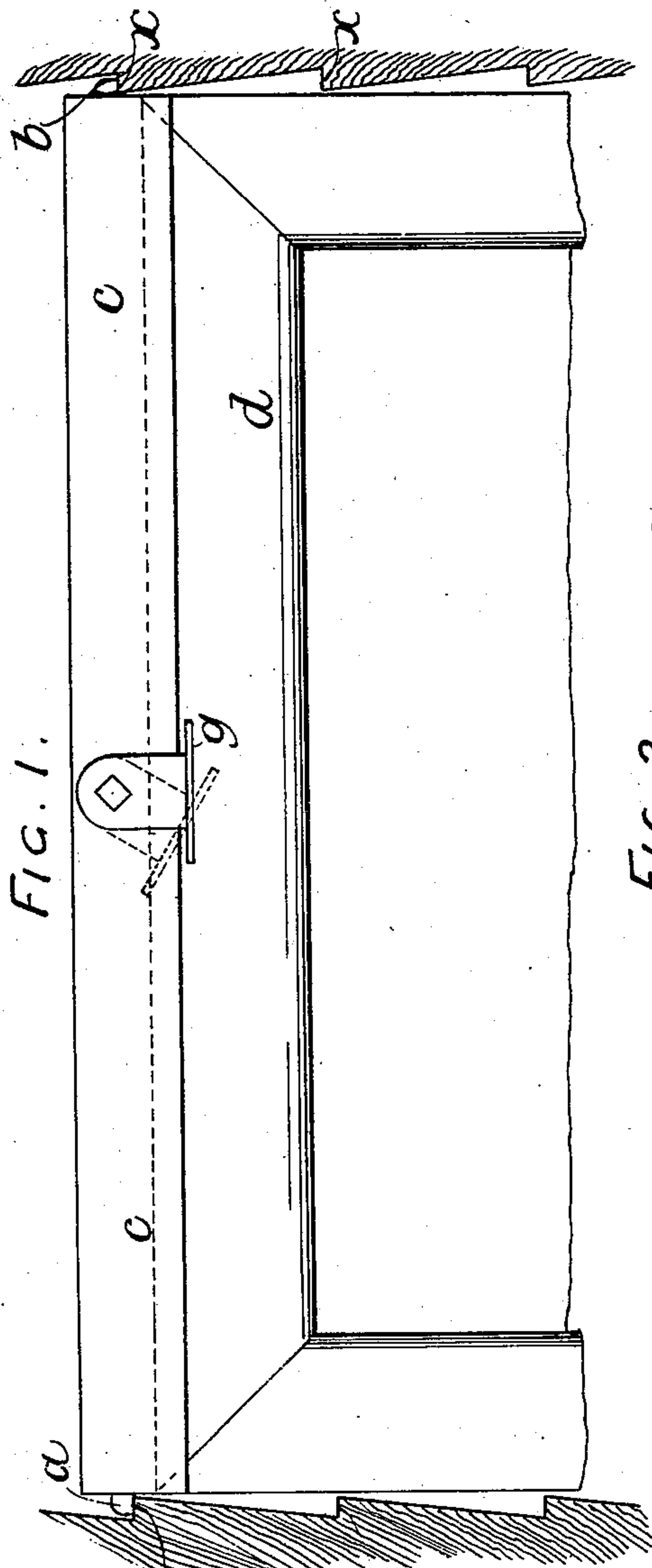
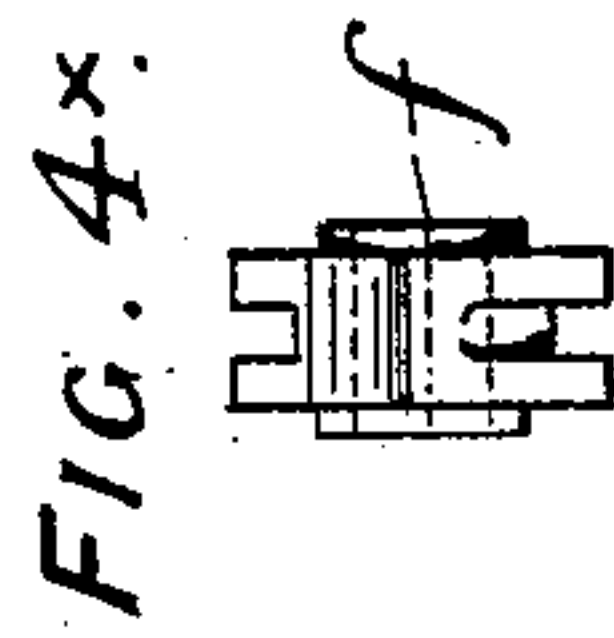
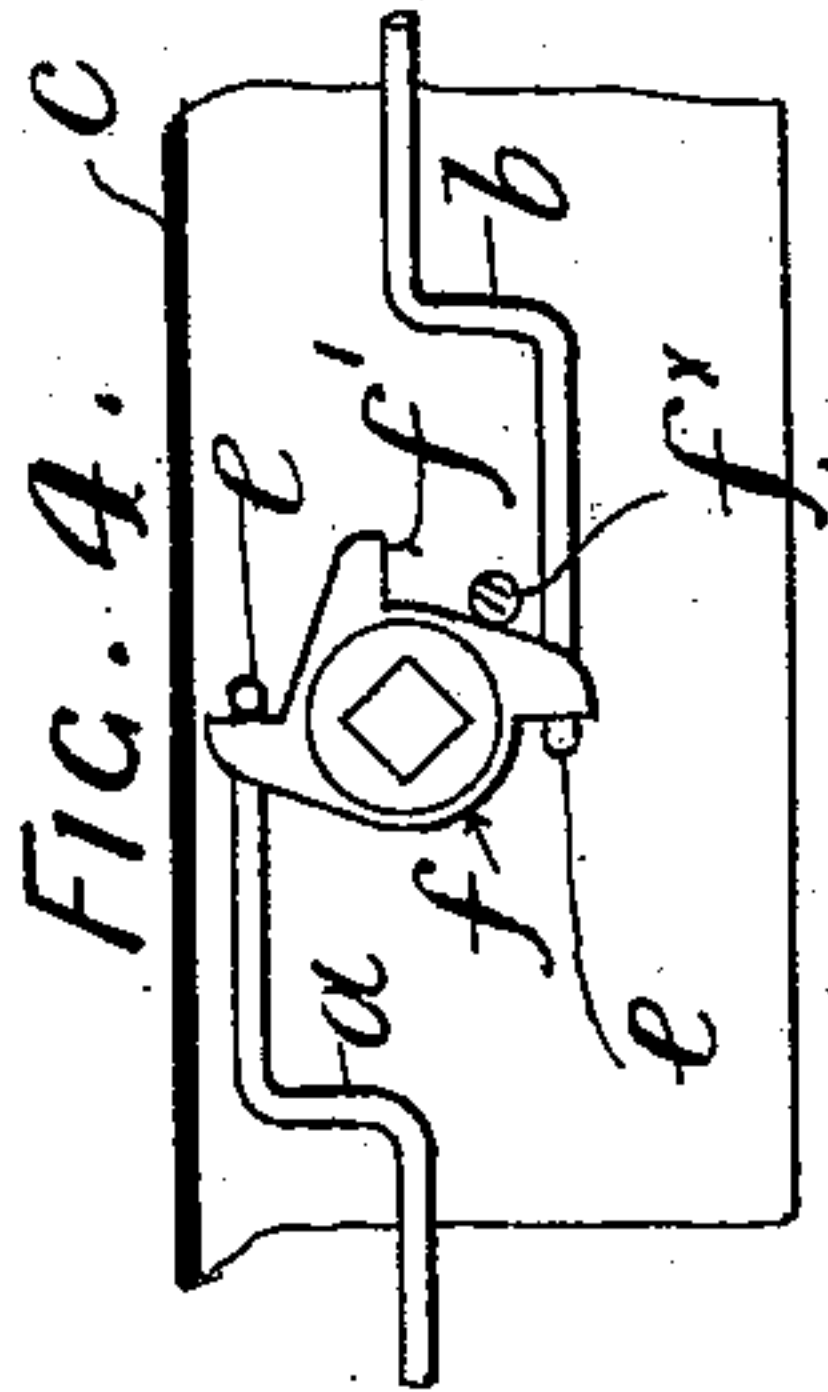
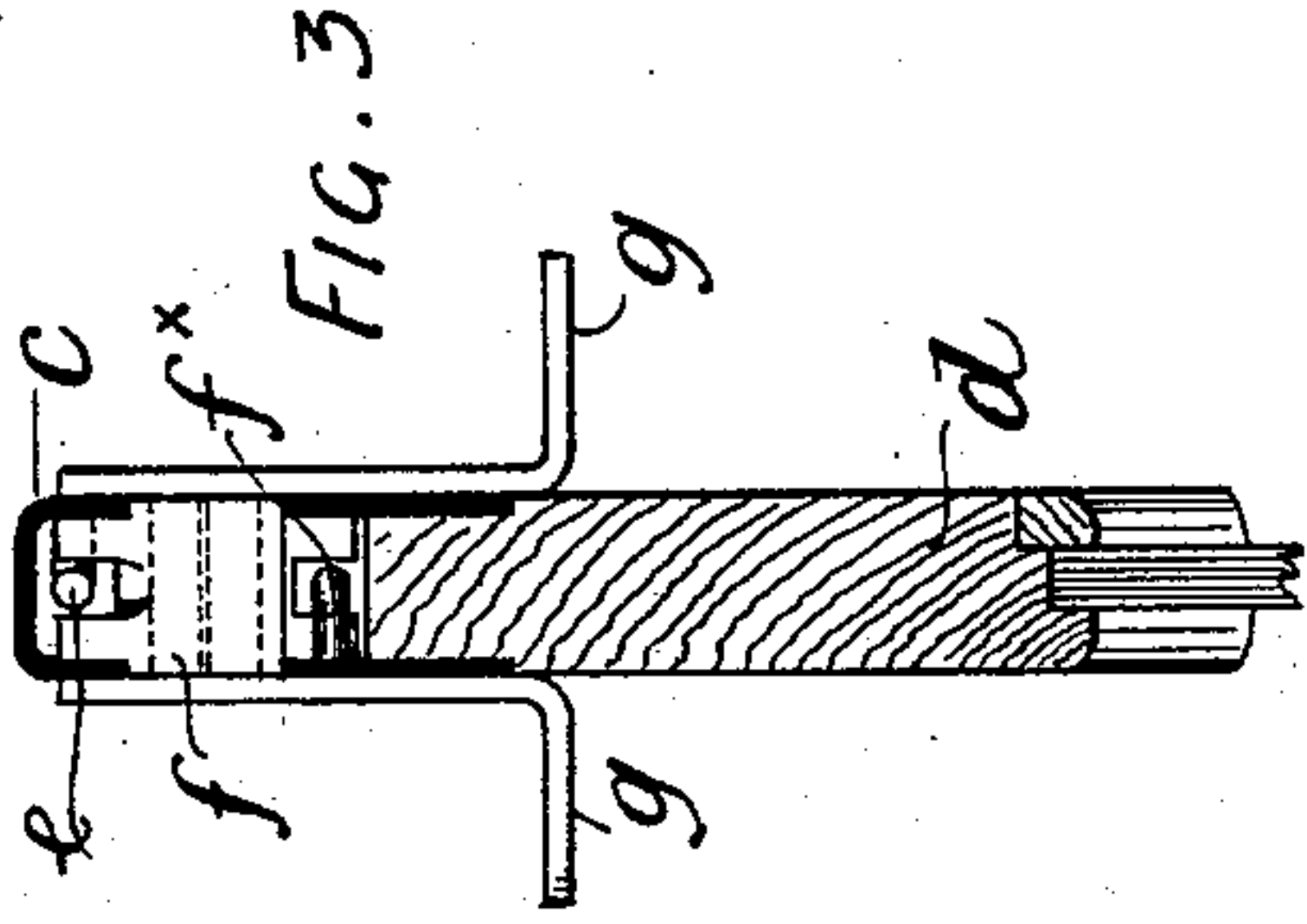
(No Model.)

2 Sheets—Sheet 1.

W. WRIGHT.
WINDOW FASTENER.

No. 601,090.

Patented Mar. 22, 1898.



WITNESSES
W. Wright
A. C. Conner

INVENTOR
WILLIAM WRIGHT
By *Howan and Howan*
HIS ATTORNEYS.

(No Model.)

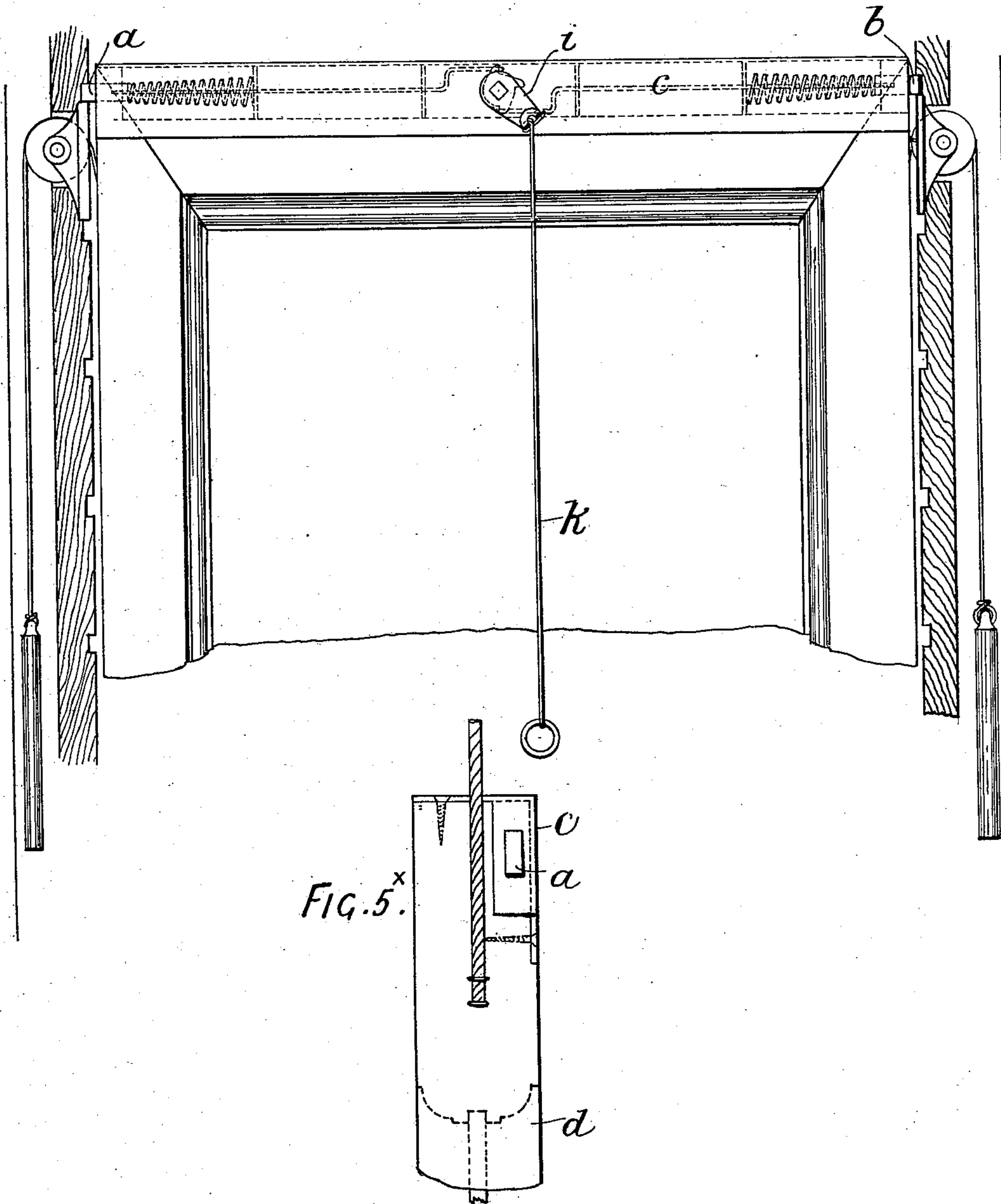
2 Sheets—Sheet 2.

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FIG. 5.



WITNESSES:
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WILLIAM WRIGHT.
By
Howson and Howson
HIS ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM WRIGHT, OF MANCHESTER, ENGLAND.

WINDOW-FASTENER.

SPECIFICATION forming part of Letters Patent No. 601,090, dated March 22, 1898.

Application filed December 7, 1897. Serial No. 661,068. (No model.) Patented in England May 11, 1896, No. 9,952.

To all whom it may concern:

Be it known that I, WILLIAM WRIGHT, a subject of the Queen of Great Britain, residing at Gorton, Manchester, in the county of Lancaster, England, have invented new and useful Improved Fastenings Applicable to Railway-Carriage and other Windows and the Like, (for which I have obtained British Patent No. 9,952, dated May 11, 1896,) of which the following is a specification.

This invention consists of a simple appliance to be adapted to railway-carriage and other windows and the like for the purpose of enabling the same to be raised and lowered and fixed in any desired intermediate position.

The nature of the said invention and the manner in which the same is to be performed or carried into practical effect will be readily understood on reference to the annexed sheet of drawings and the following explanation thereof.

The invention is applicable both to the top rail of a sash-window—such, for example, as are used for the doors of carriages—and also to the bottom rail of saloon-windows.

Figure 1, on Sheet 1 of the annexed drawings, is an elevation, Fig. 2 a longitudinal section, and Fig. 3 a transverse section, of my improved apparatus as applied to the top bar of a sash-window such as are fitted in the doors of railway or other carriages. Figs. 4 and 4^x show detached parts, hereinafter described; and Fig. 6 shows the apparatus applied to the bottom rail of a sash which is not lowered into a casing. On Sheet 2 Figs. 5 and 5^x show the application of my invention to the upper sash of an ordinary sash-window.

The invention consists principally of two horizontal sliding bolts *a* and *b*, the outer ends of which project through openings formed in the metal casing *c*, one at each side near to the top of the sliding window-sash *d*, (the upper part of which only is shown.) The outer ends of these bolts *a* and *b* are beveled at the top, so as to lock into suitable recesses *x*, formed in the fixed frame or stile at each side near to the top or bottom and also at intermediate positions between the two. The inner ends of these sliding bolts *a* and *b* are bent so as to overlap and are provided with teeth or projections *e*, which interlock with other teeth or projections formed on a central

boss *f*, which is so mounted as to revolve in holes or bearings in the metallic casing *c* of the apparatus. (See also enlarged detached view of these parts, Figs. 4 and 4^x.) The projection *f'* on the boss *f* coming against the fixed stop *f^x* prevents the boss from rocking too far.

The boss *f* is fitted with a handle or thumb-piece *g*, projecting inside the door of the carriage, and also with a similar one outside, by rocking either of which the boss *f* can be turned partially, so as to withdraw the sliding bolts *a* and *b* simultaneously into the casing *c* and to release the sash-window and allow it to be lowered or raised to the position required.

The two sliding bolts *a* and *b* are each fitted with a coiled spring *h* or other suitable spring or springs having a constant tendency to thrust or pull the bolts outward whenever the handle or thumb-piece *g* is released.

I prefer to make the metallic casing *c*, which incloses the apparatus, of a piece of sheet metal bent into an inverted-trough shape, (see Fig. 3,) so as to be light and capable of being fitted onto the sash without cutting away the wood-work, the parts *a^x*, carrying the movable portions of the apparatus, being fixed therein by screws or riveted.

The upper side of the projecting end of each bolt *a* and *b* is beveled or rounded like an ordinary door-catch, so that the window can be raised without turning the thumb-piece or handle *g*, and when the bolts *a* and *b* come opposite to the holes in the fixed frame or stile they will be shot outward by the spring or springs and hold the sash in position.

It is only when the sash is to be lowered that the thumb-piece or handle *g* is required to be turned; but the same knob also serves to raise the window-sash.

When the invention is applied to the top sash of an ordinary window, I employ a short lever *i* in place of the thumb-piece *g*, which hangs down at an angle when the bolts are shot, as shown at Figs. 5 and 5^x, Sheet 2. To this lever I attach (by a ring or otherwise) a cord *k*, and I make the sash-weights heavier than the sash, so that their tendency is to keep the sash always at the top, and the spring-bolts *b* will secure it in that position. When it is required to lower the sash, the cord *k*

must be pulled straight down, the first effect of which will be to cause the lever *i* to rock and release the bolts *a* and *b*, and as the pull on the cord is continued it will pull the sash down. On releasing the cord the spring-bolts will fix it. To raise the sash, pull the lever *i* back into the perpendicular position by the cord *k* and hold it in that position as the weights raise up the sash. On releasing the cord *k* the spring-bolts *a* and *b* will be shot out and fix the same.

To adapt this improved apparatus to sash-windows which do not fall down into a casing—such, for example, as the side windows of saloon-carriages—all that is necessary is to bevel off the projecting ends of the bolts in the opposite direction and to turn the apparatus upside down and to fit the same underneath the bottom rail of the sash, as shown at Fig. 6. The improved fastening is also obviously applicable to sliding panels and the like.

I claim as my invention—

An improved fastening applicable for rais-

ing, lowering, sliding, and fixing railway-carriage and other windows, sliding panels and the like consisting in the combination with a hollow metal casing, adapted to be fitted to the top or bottom rail of the sash or the like, of two sliding bolts thrown outward by a spring or springs and capable of being withdrawn by partially turning an external thumb-piece, lever or handle fitted to a central boss having teeth or projections gearing with teeth or projections on the inner ends of the said sliding bolts, the said thumb-piece, lever or handle being also adapted to be used for raising and lowering or otherwise sliding the window-sash or the like, when the bolts are withdrawn, substantially as hereinbefore described.

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

WILLIAM WRIGHT.

Witnesses:

GEORGE DAVIES,

CHARLES A. DAVIES.