

No. 646,311.

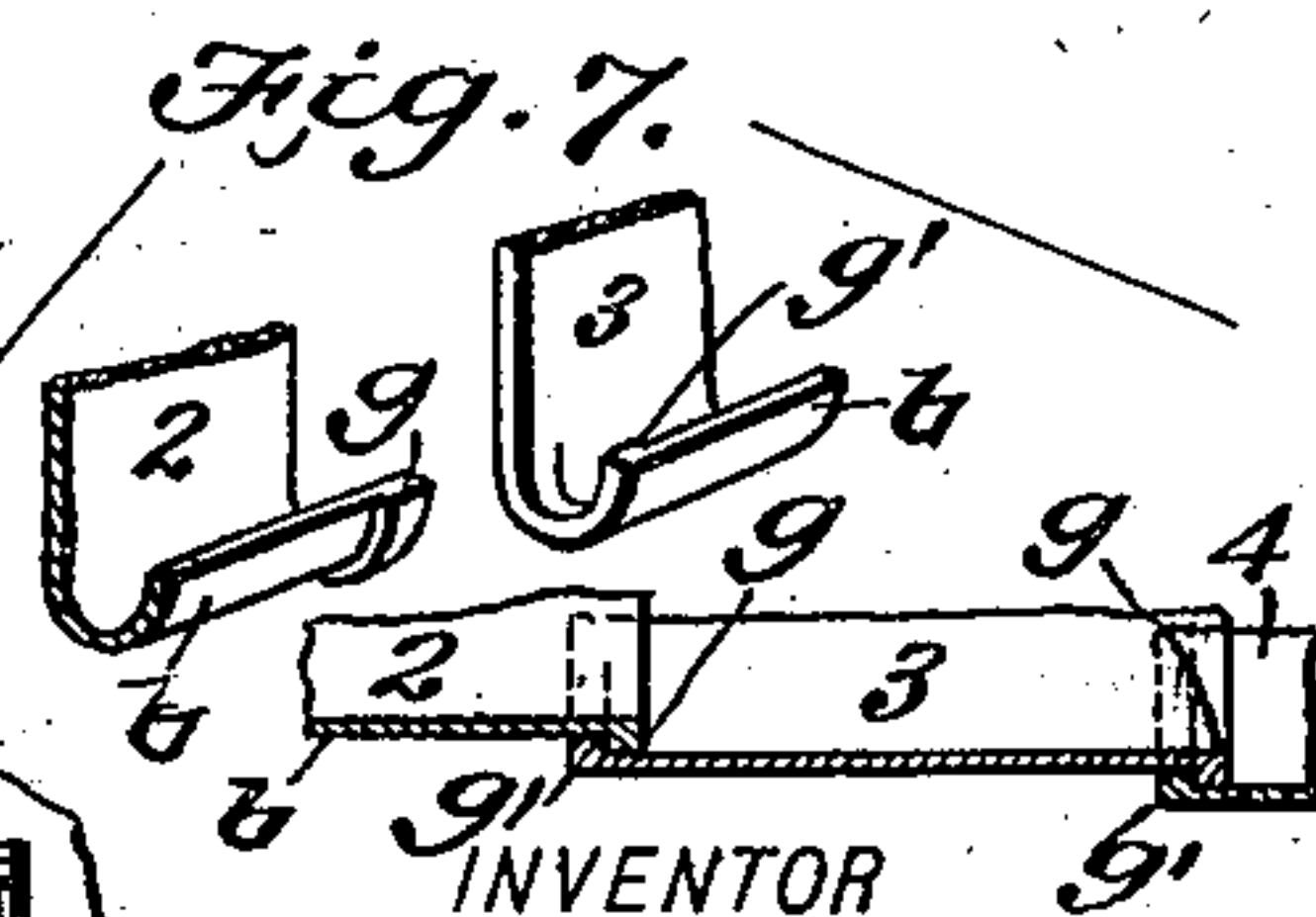
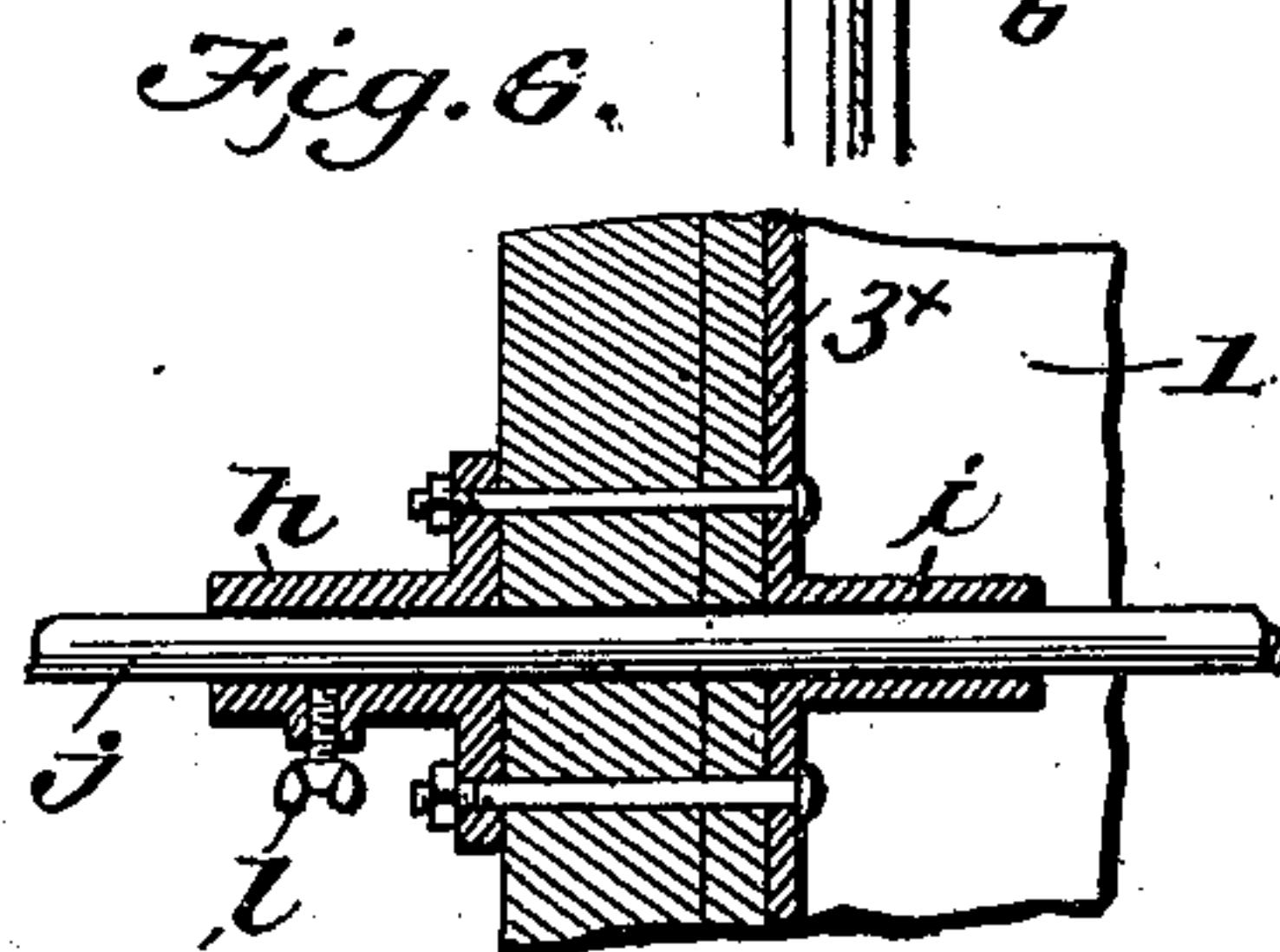
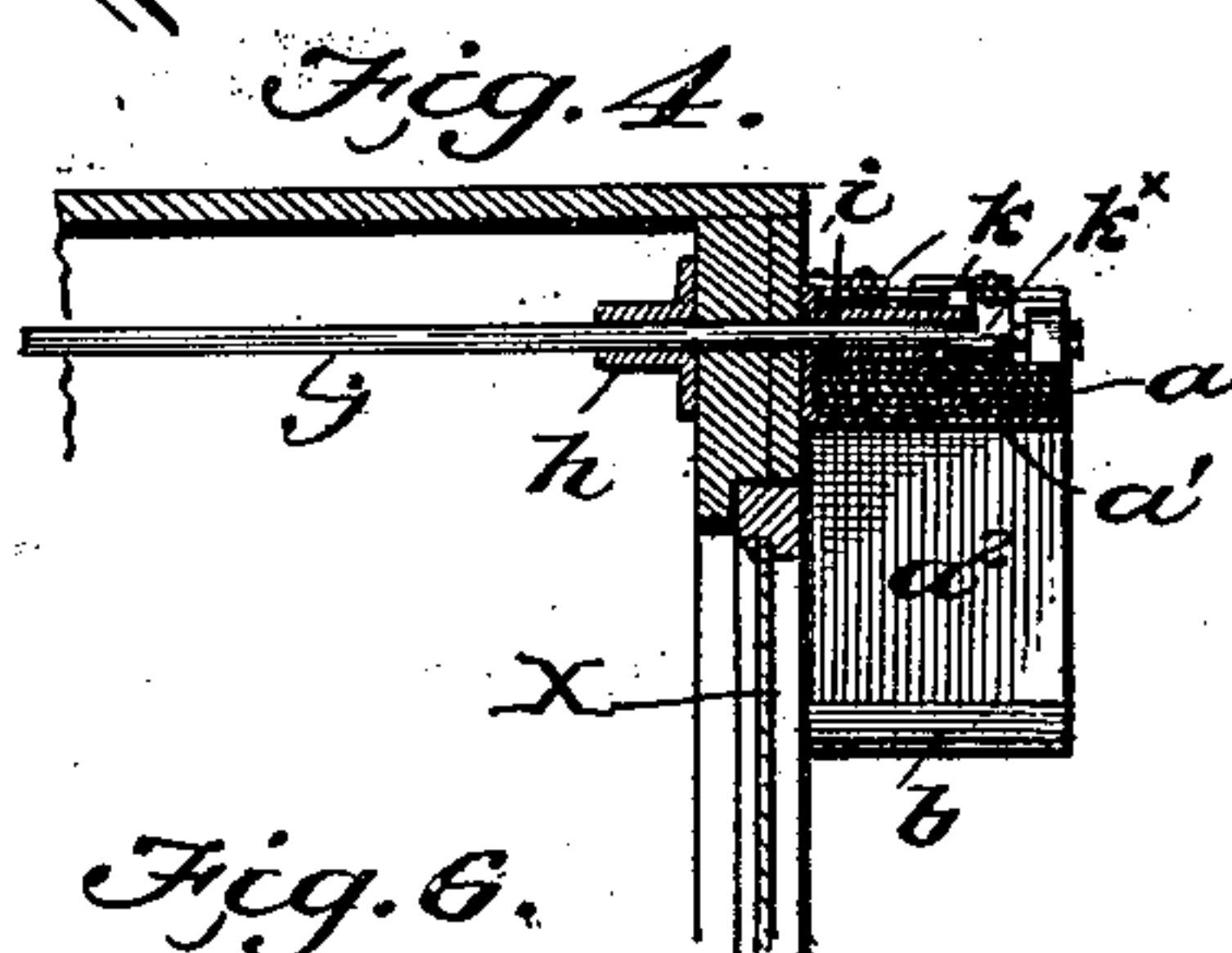
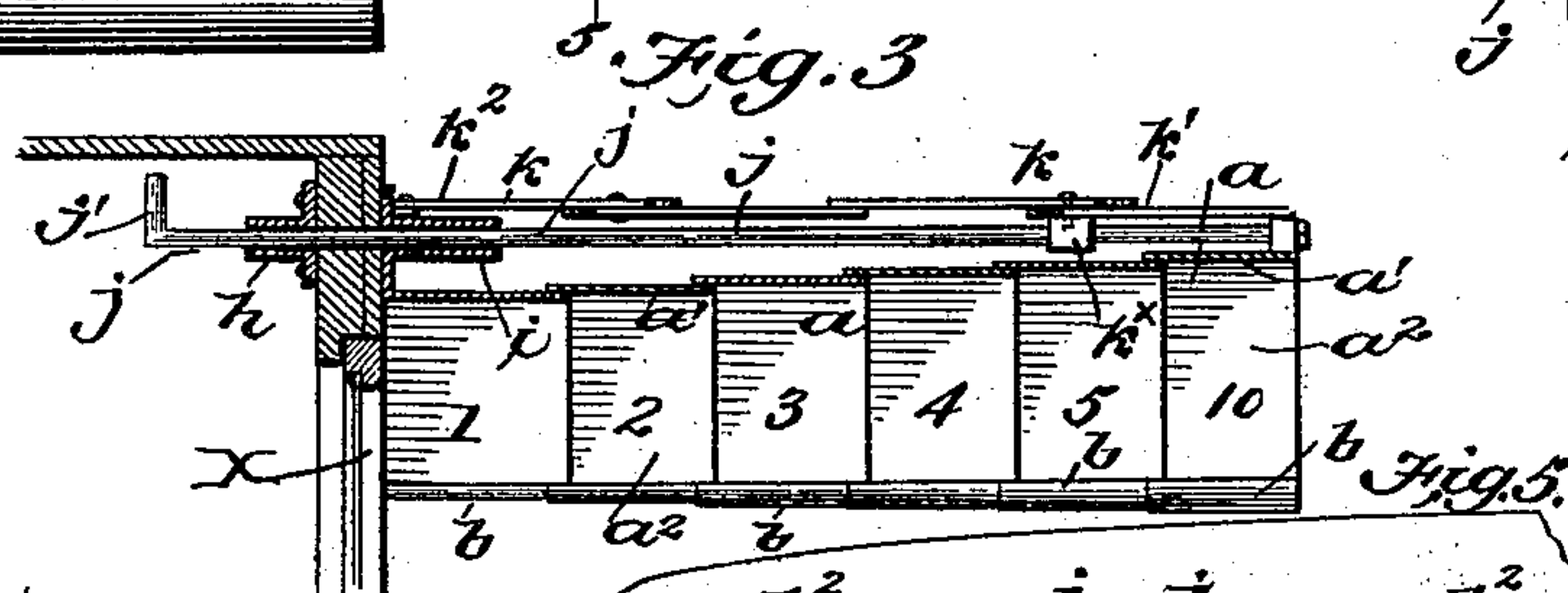
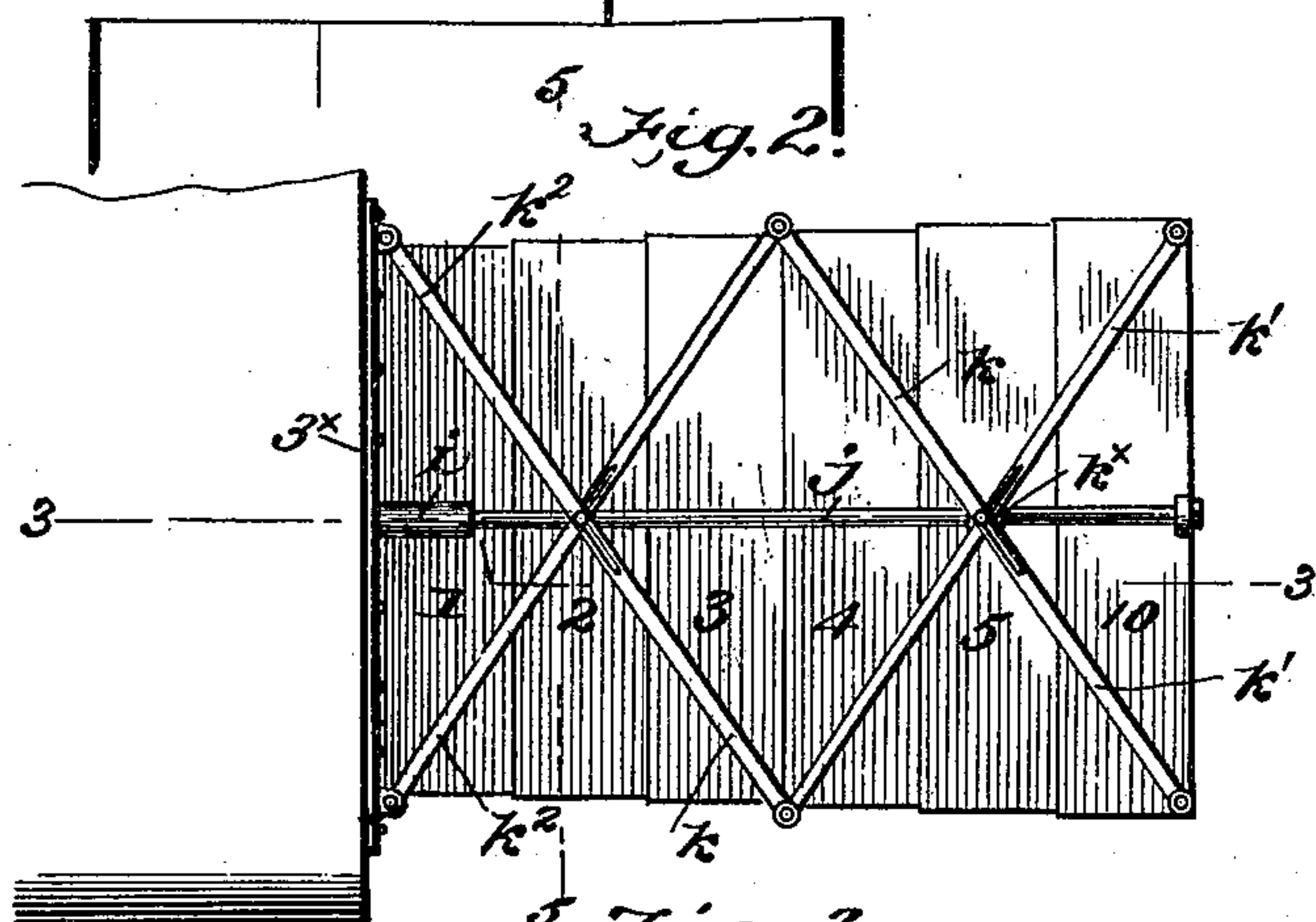
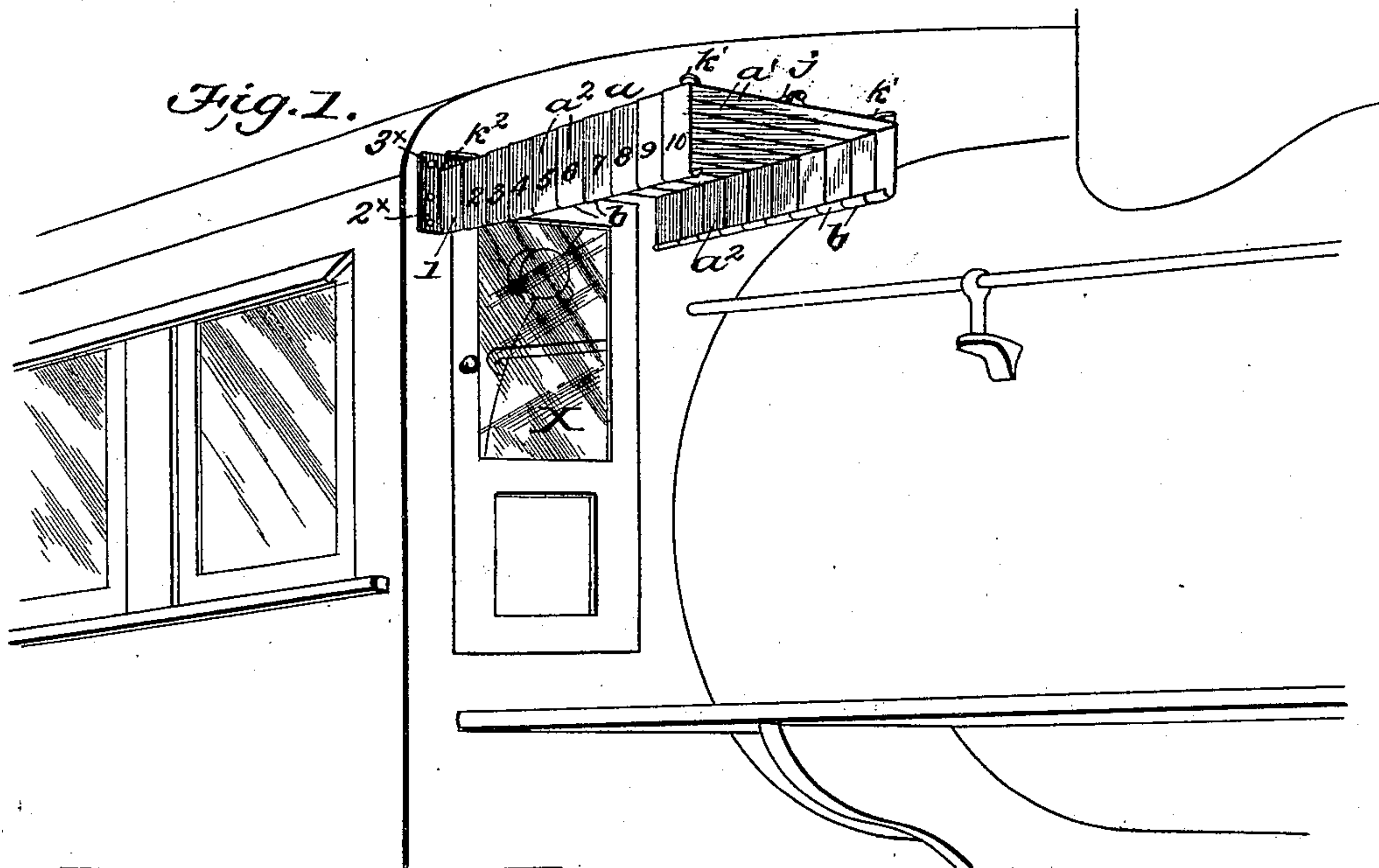
Patented Mar. 27, 1900.

H. M. PEMBERTON.

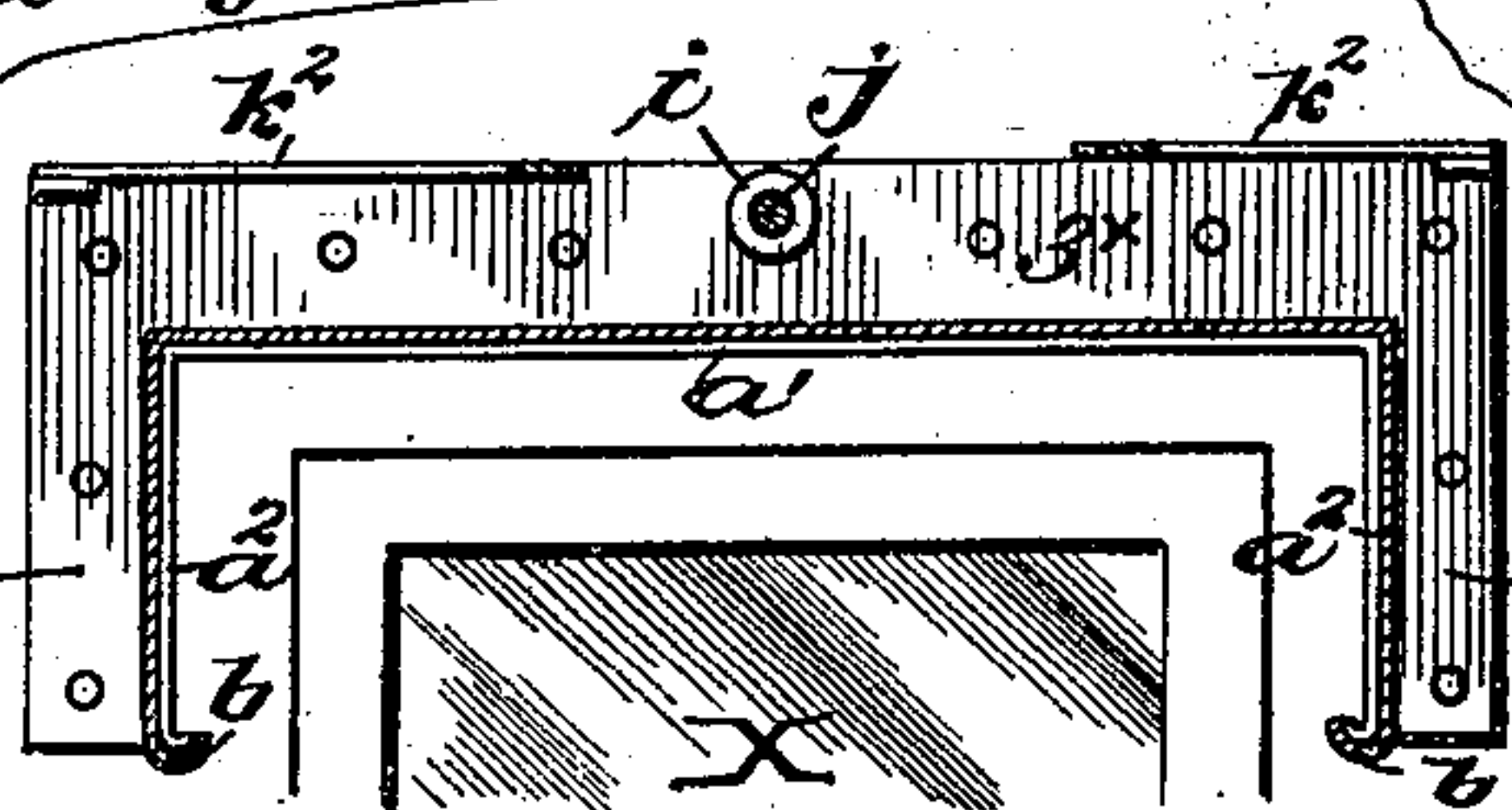
FOLDING SHIELD OR GUARD FOR LOCOMOTIVE WINDOWS.

(Application filed Jan. 5, 1900.)

(No Model.)



WITNESSES:  
*Louis Dieterich*  
*C. McCormick*



INVENTOR  
*H. M. Pemberton.*  
BY  
*Fred C. Dieterich & Co.*  
ATTORNEYS



# UNITED STATES PATENT OFFICE.

HENRY M. PEMBERTON, OF FAYETTEVILLE, NORTH CAROLINA, ASSIGNOR  
OF ONE-HALF TO JAMES R. WILLIAMS, OF SAME PLACE, AND ALBERT  
S. WILLIAMS, OF NEW YORK, N. Y.

## FOLDING SHIELD OR GUARD FOR LOCOMOTIVE-WINDOWS.

SPECIFICATION forming part of Letters Patent No. 646,311, dated March 27, 1900.

Application filed January 5, 1900. Serial No. 480. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY M. PEMBERTON, residing at Fayetteville, in the county of Cumberland and State of North Carolina, have invented a new and Improved Folding Shield or Guard for Locomotive-Windows, of which the following is a specification.

This invention relates to improvements in that class of shields or awnings for windows composed of collapsible or telescopic sections arranged to be extended or folded up at the will of the operator.

Heretofore in the construction of awnings or shields of the character above noted it has been usual to pivotally connect the several sections forming the complete shield or awning upon a common axial point, whereby all of the sections are made to swing in concentric arcs, and the awning or shield is brought down over all or a portion of the window, the same as in the operation of an ordinary drop-awning.

This invention, while capable of use with the ordinary window or door openings, is more especially intended for the lookouts of locomotive-engine cabs, and in its more generic features the said invention differentiates from the forms of foldable awnings or shields of the kind above referred to in that the several sections forming the complete improved shield are arranged and constructed to be projected outwardly from the cab-window in such a plane as to positively serve as a deflector against rain, snow, wind, and other weather elements without cutting off the usual forward lines of vision of the said cab-window or lookout.

This invention comprehends certain general features of construction, including a novel correlation of the several foldable sections with an innermost stationary section, whereby the shield can be extended partially or to its fullest extent from within the cab and in which the stationary section is also arranged to form a solid support for all of the sections when they are folded or closed in, said construction also including a peculiar arrangement of the several foldable sections, whereby, as it were, each of the several fold-

able sections forms a support for the next outwardly-extending section, the several parts being so mounted and braced upon each other as to dispense with the necessity of employing angle-braces and other supports connecting the several sections from below, such as are commonly used in awnings of this kind, and in which the sections are so arranged that no manipulation from the outside of the cab is required for properly adjusting the shield either to its extended or folded position.

In its more subordinate features my invention consists in certain details of construction and novel combinations of parts, all of which will be hereinafter first described and then specifically pointed out in the appended claims, reference being had to the accompanying drawings, in which—

Figure 1 is a view of a portion of a locomotive-engine cab with my improvements applied. Fig. 2 is a top plan view of the shield of a portion of the cab, the shield being extended to its fullest limit. Fig. 3 is a longitudinal section of the same on the line 3 3 of Fig. 2. Fig. 4 is a similar view, the guide-section being folded up. Fig. 5 is a transverse section on the line 5 5 of Fig. 2. Fig. 6 is a detail horizontal section on the line 6 6 of Fig. 3. Fig. 7 is an enlarged detail view of parts hereinafter referred to.

In its practical construction my improved shutter or shield may be constructed of any material suitable for the purpose. I prefer, however, to construct the same of sheet metal, whereby it will possess the elements of lightness, rigidity, and strength.

The shield consists of a series of sections, which may be ten, as shown in Fig. 1 of the drawings, or more or less, if desired. All of the sections are of a corresponding shape and are relatively of such size as to permit of being telescopically supported upon each other, said construction and arrangement of my form of shield being, however, such that the outermost one of the said sections is the largest in size and the intermediate ones progressively smaller from the outer to the inner or first section, whereby the inner section will form a supporting-body upon which all of the



remaining sections can be closed over, as clearly illustrated in Fig. 3, the reason of which will presently be fully explained. Each section  $a$  consists of the pendent side mem-  
 5 bers  $a^2$  and a top  $a'$ , the sides being vertically disposed and the top horizontally, the junction of the top and sides being formed to suit the shape of the upper end of the window or lookout X.

10 In the drawings the upper edges of the window terminate in right angles. The edges of the sections 1 to 10 are correspondingly shaped, it being, however, obvious that when the upper part of the window is arched or of  
 15 other form the sections will all have a corresponding shape. The innermost section 1 has side flanges  $2^x$  and a top flange  $3^x$ , whereby it can be permanently secured to the outside of the upper end of the cab-window. Each of  
 20 the sections 1 to 10 has the bottom of its pendent sides  $a^2$  terminating in inwardly-turned beads or flanges  $b$ , and the said beads or flanges of the several sections are progressively of increased diameters, whereby the bead of sec-  
 25 tion No. 2 will slide upon the bead of section No. 1, the bead  $b$  of section No. 3 over section No. 2, and bead  $b$  of section No. 4 over No. 3, and so on. Each telescopic section has a stop-  
 30 lug  $g$ , that engages a lug  $g'$  on its adjacent section, said lugs and stops  $g g'$  serving to limit the outward thrust of each section and also as a guiding means for steadying the pendent sides of the shield when the same is adjusted to its fullest extent.

35 As a simple easily-manipulated means for adjusting the guide from within the cab and also as a means for supporting the shield when adjusted to its extended position I provide a bearing-sleeve  $h$  on the inside of the upper  
 40 cross-frame of the cab-window and in a plane sufficiently above the top of the innermost section 1 to extend over the several sections 2 to 10 when they are closed upon the section 1. The sleeve  $h$  is also in a plane with the aper-  
 45 tured sleeve  $i$ , projected outward from the top flange of the section 1. Longitudinally slidable on the sleeves  $h i$  is a rod  $j$ , the outer end of which is made fast to the top of the section 10. This rod has a handle  $j'$  at the  
 50 inner end, whereby it can be readily moved inwardly or outwardly at the will of the operator.

To further strengthen the guide when in its extended position, a toggle-frame  $k$  may be  
 55 provided, the outer transverse bar  $k'$  of which is made fast to the opposite ends of the top section 10, the inner ends of the members  $k^2$  of the said toggle-frame being pivotally joined to the flange of the section 1 in a plane  
 60 with the rod  $j$ , and to further strengthen the said supporting means the toggle-arms may have one or more of their central intermediate joints formed with the cuff  $k^x$ , slidable upon the rod  $j$ .

65 From the foregoing, taken in connection with the accompanying drawings, it is thought

the advantages of my invention will readily appear.

It will be noticed the shield can be turned in or extended at the will of the operator, and, 70 if desired, the said shield may be but partially extended and so held by tightening the rod  $j$  through the medium of the clamp-screw  $l$ . (See Fig. 6.)

The shield can be extended outward in a 75 plane above the window, but in such a manner as not to interfere with the view sufficient to take in the track and its surroundings ahead.

When the several sections are closed in, the 80 entire shield will be rigidly supported upon the inner section 1, and when thus closed in the cab-window can be opened, as ordinarily, to permit the passing of the engineer or fire-  
 85 man to the running-board of the engine.

My improved shield has no pendent brackets or braces to support it, as is common in the ordinary forms of awnings of this kind, the entire support being at one end upon the cab-  
 90 window, the pendent sides of the sections 1 to 10 being firmly guided and held rigid by the peculiar construction of the beads  $b$  and members  $g g'$ .

My invention is obviously of a very simple 95 and inexpensive construction and can be readily fitted to any of the ordinary forms of cab-windows without in the slightest changing their present construction, and when folded up the shield takes up very little room and in no sense does it have a marring or dis- 100 figuring effect.

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

1. A shield for the purposes described, com- 105 prising a series of telescopic sections, one of which is rigidly secured over the upper portion of the window or other opening, the remainder being of successively-increasing sizes, whereby they can be closed upon each  
 110 other to rest upon the fixedly-secured section, each of the several sections consisting of parallel pendent sides, and a top or cross member, each of the pendent sides having a guide  
 115 portion, said guide portions being arranged whereby they are slidably connected with each other and means operative from the inside of the window over which the shield is  
 120 applied for closing or extending the said shield, as specified.

2. A shield for the purposes described, com- 125 prising a series of telescopic sections, one of which is adapted to be fixedly connected over the upper portion of the window or other opening to which it is to be applied, the re-  
 130 mainder being of successively-increasing sizes, whereby they can be closed upon each other to rest upon the fixedly-secured section, the several sections having interlocking guide members at the lower end, and stops for limiting the outward movement of the sections; and means for opening and closing the said



sections, substantially as shown and described.

3. A shield for the purposes described, comprising a series of telescopic sections of successively-increasing sizes, one of which, the smallest, is adapted to be fixedly secured over the window or other opening to which the shield is to be applied; the remaining sections being arranged to close upon each other and upon the fixedly-held section, each of the said sections consisting of pendent side members and a top or cross member, the lower ends of the side members terminating in turned beads, the beads of the several members progressively increasing in diameter whereby they are adapted to be slidably connected with each other, and a pull-rod fixedly connected to the outermost section and projected through the upper rail of the window-casing, substantially as shown and for the purposes described.

4. A shield for the purposes described, comprising in combination with the window-casing, said casing having a guide-sleeve upon its inner side, and a registering aperture; a series of telescopic sections of successively-increasing sizes, the innermost one of which being the smallest, said innermost one being fixedly connected to the outside of the window-casing over the upper part of the window, said innermost section having suitable flanges for securing it to the window, the upper or cross flange having a sleeve held to register with the sleeve on the inside of the window-frame, the several sections, other than the fixedly-held one being movable upon each other and adapted to close upon the fixedly-held section; a horizontally-disposed rod slidable in the sleeves before mentioned, the outer end of said rod being fixedly connected to the top

of the outermost one of the sections; and a fastening means for holding the rod to its adjusted positions, all being arranged substantially as shown and described.

5. As an improvement in shields for car-windows and the like; the combination with the window-frame; of a shield consisting of a series of telescopic sections of progressively-increasing sizes, the inner or smallest one of which is adapted to be fixedly connected to the outside of the window-casing over the opening, said inner section having suitable side and top securing-flanges; the remaining sections being slidable upon each other and adapted to all close over and be supported upon the fixedly-held section; a horizontally-disposed rod slidable through the window-casing at a point above the fixedly-held section, the outer end of said rod being fixedly secured to the top of the outermost one of the said sections, each of the sections having pendent sides, the lower ends of which terminate in beads, the said beads being of progressively-increasing sizes whereby the beads of the different sections will slide upon each other, said pendent members having stops and projecting lugs for limiting the outward movement thereof; and a toggle supporting-frame, the outer ends of which are connected to the top of the outermost one of the telescopic sections, and the inner ends of which are pivotally connected to the upper flange of the inner or fixedly-held section, all being arranged substantially as shown and for the purposes described.

H. M. PEMBERTON.

Witnesses:

J. C. THOMSON,  
RALPH B. KING.