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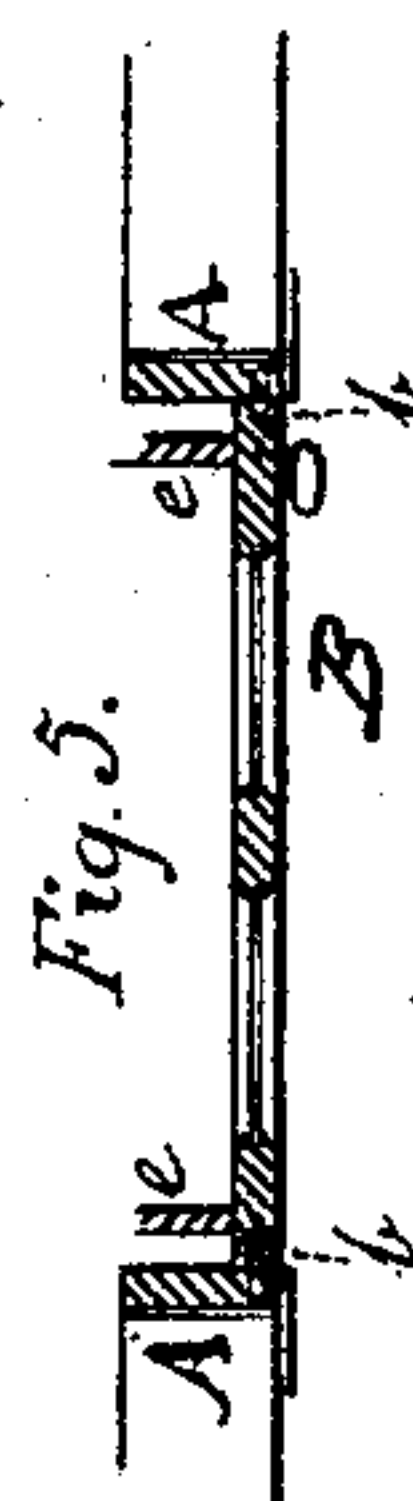
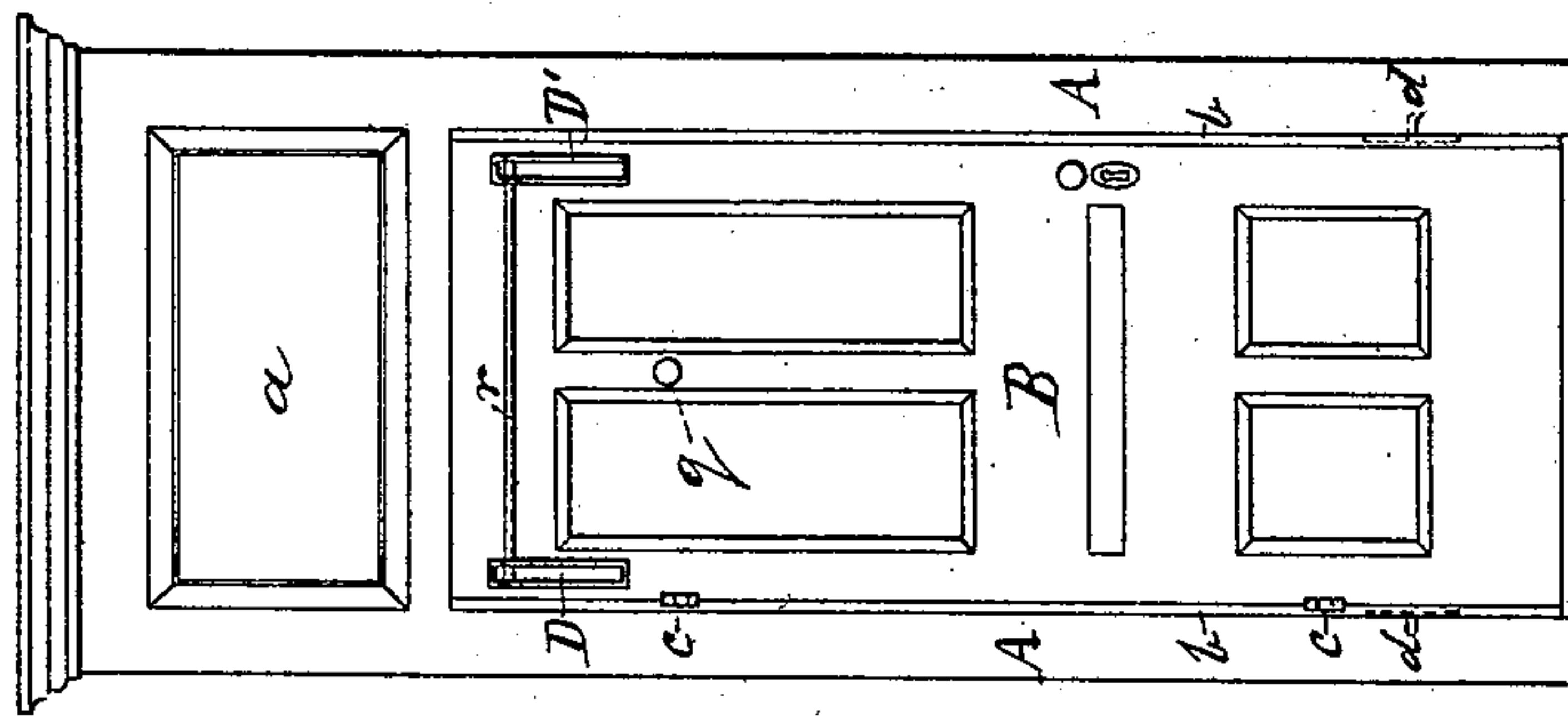
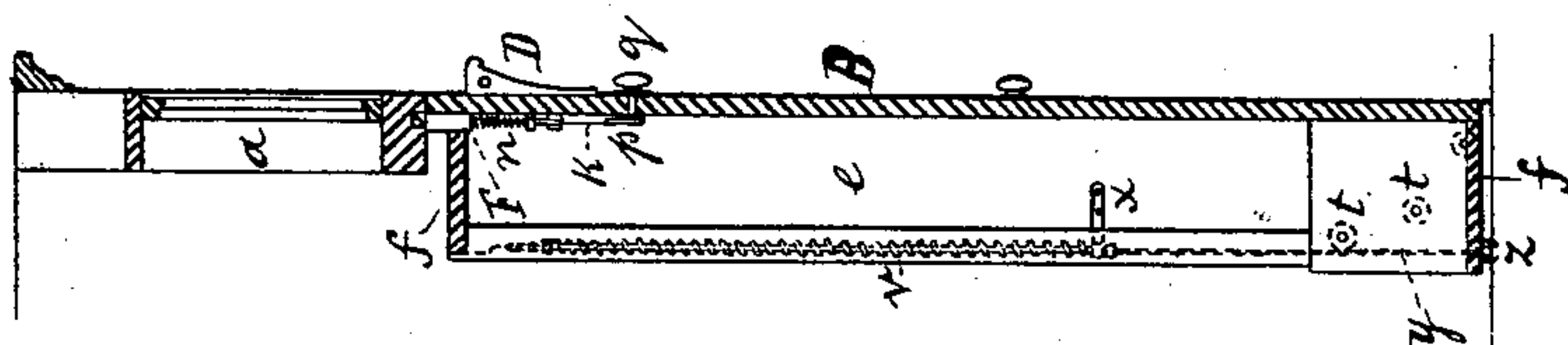
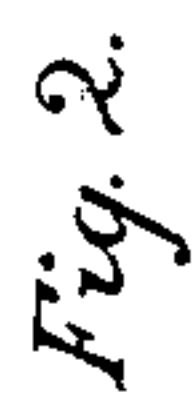
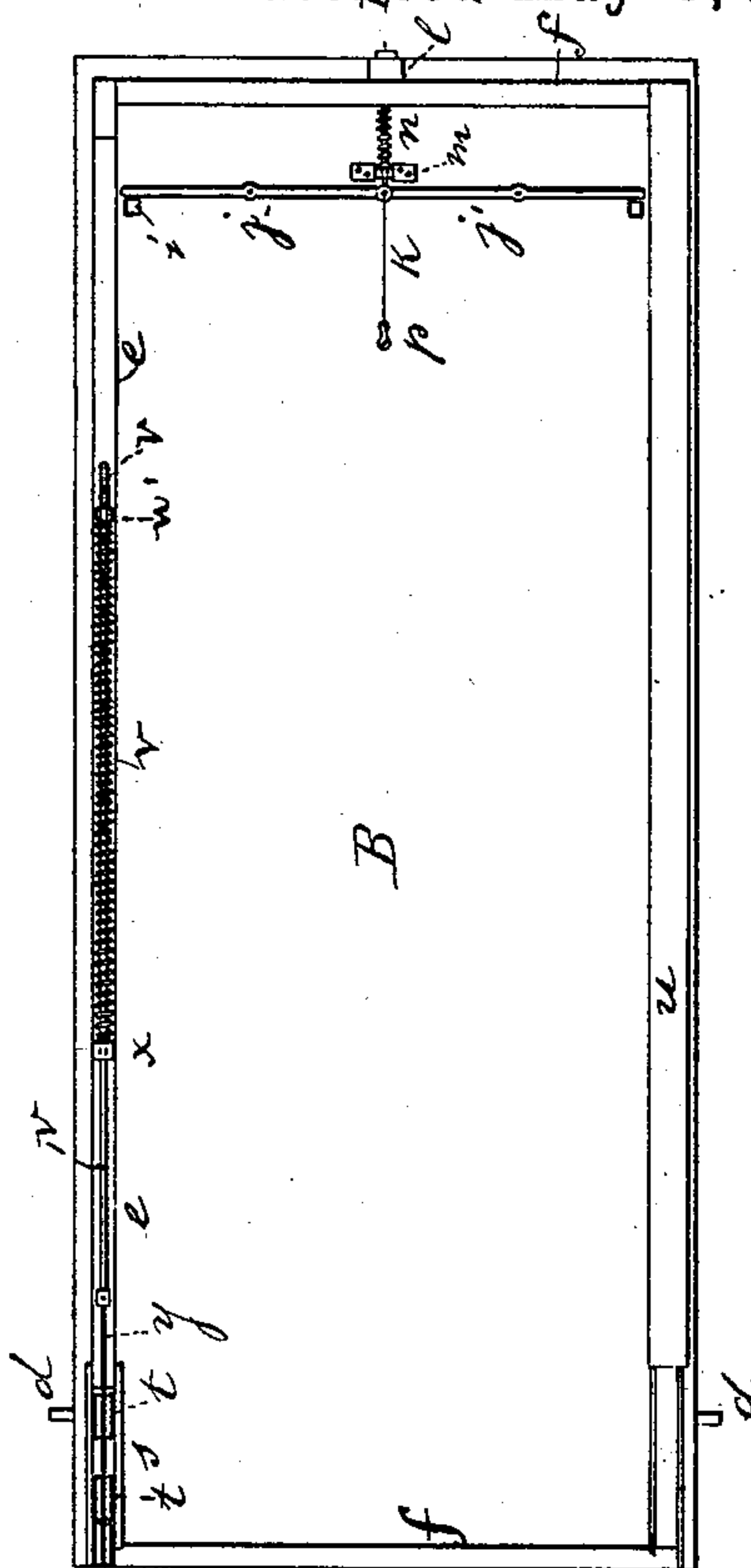
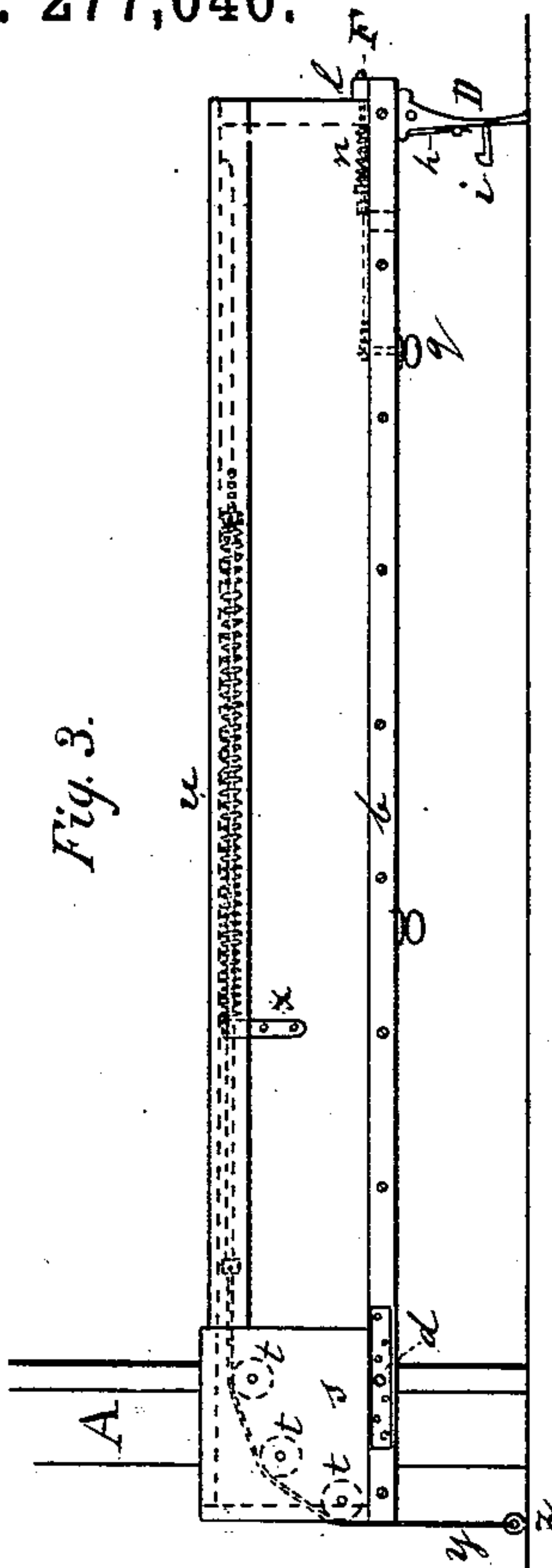
R. F. MEISSNER.

2 Sheets—Sheet 1.

FOLDING BEDSTEAD.

No. 277,046.

Patented May 8, 1883.



WITNESSES:

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(No Model.)

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2 Sheets—Sheet 2.

FOLDING BEDSTEAD.

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Fig. 6.

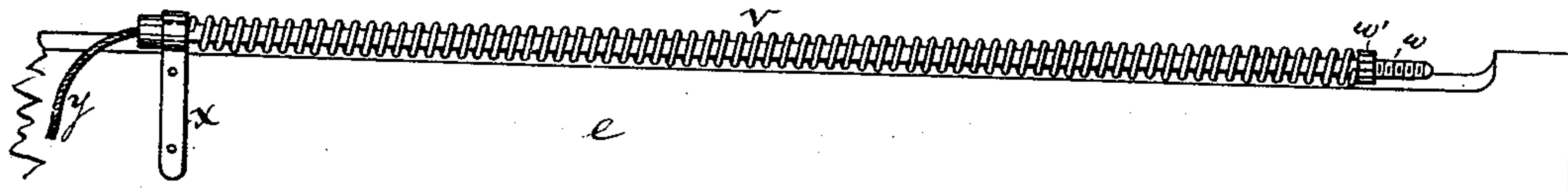


Fig. 8.

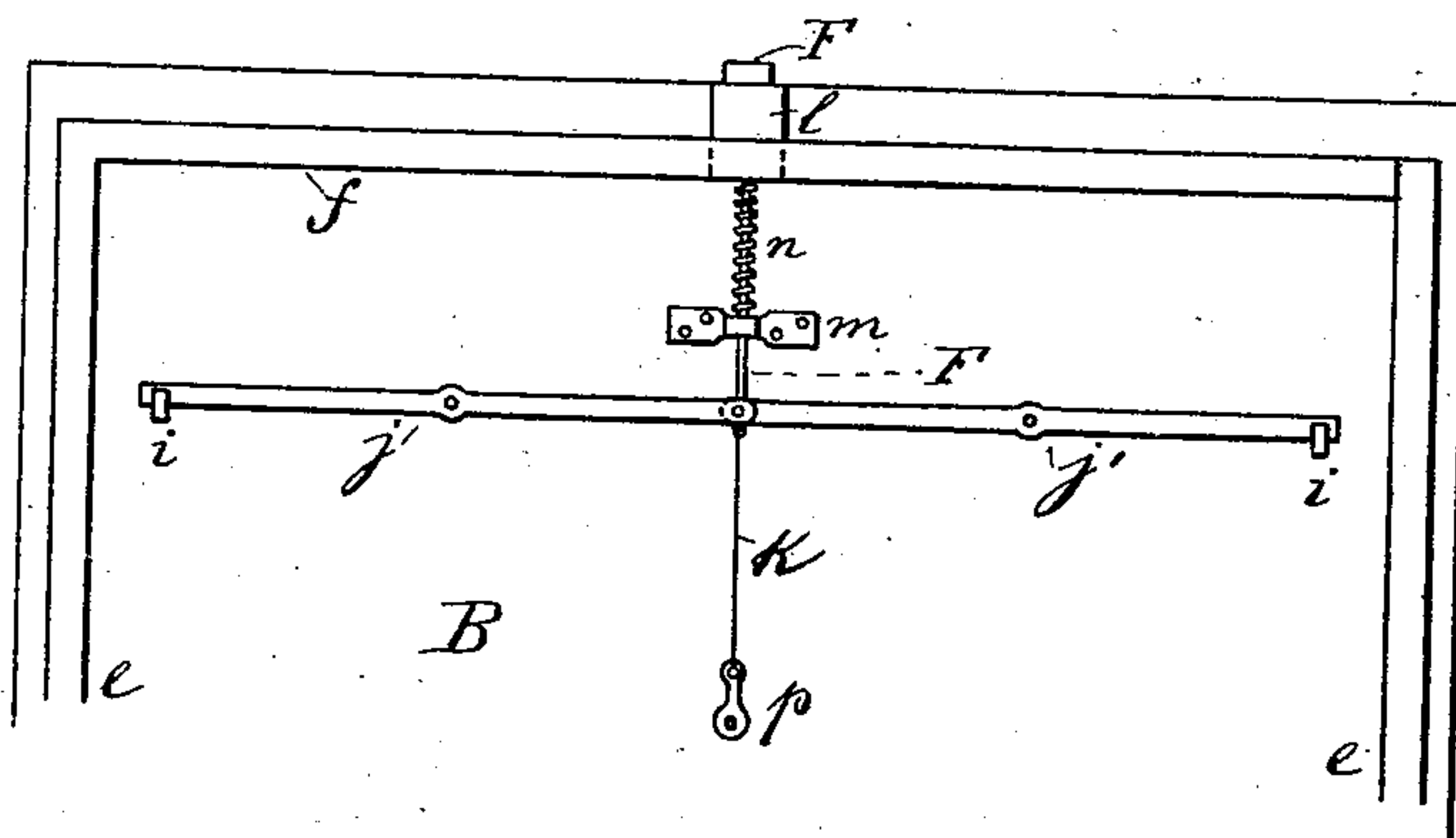


Fig. 7.

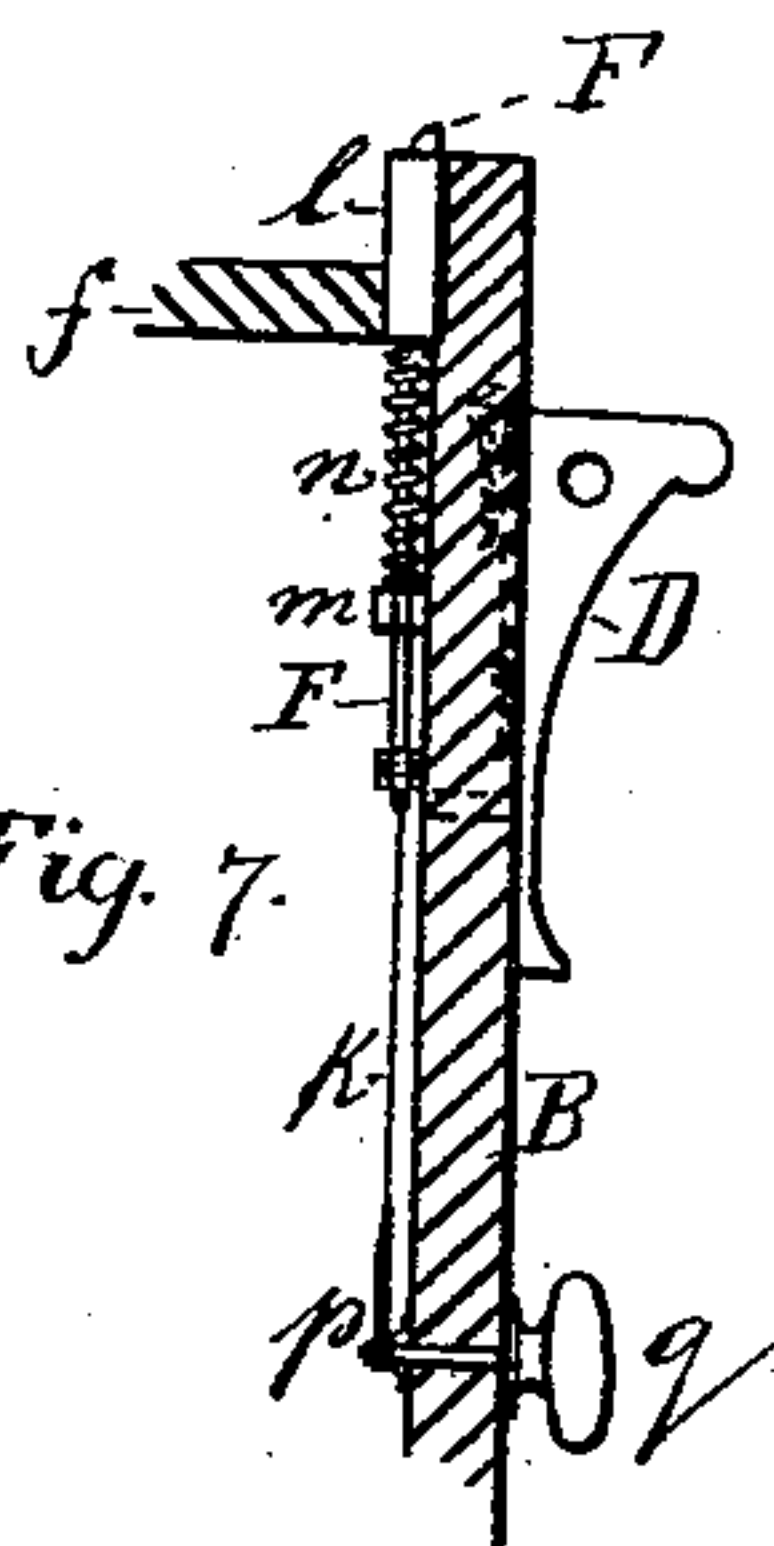


Fig. 9.

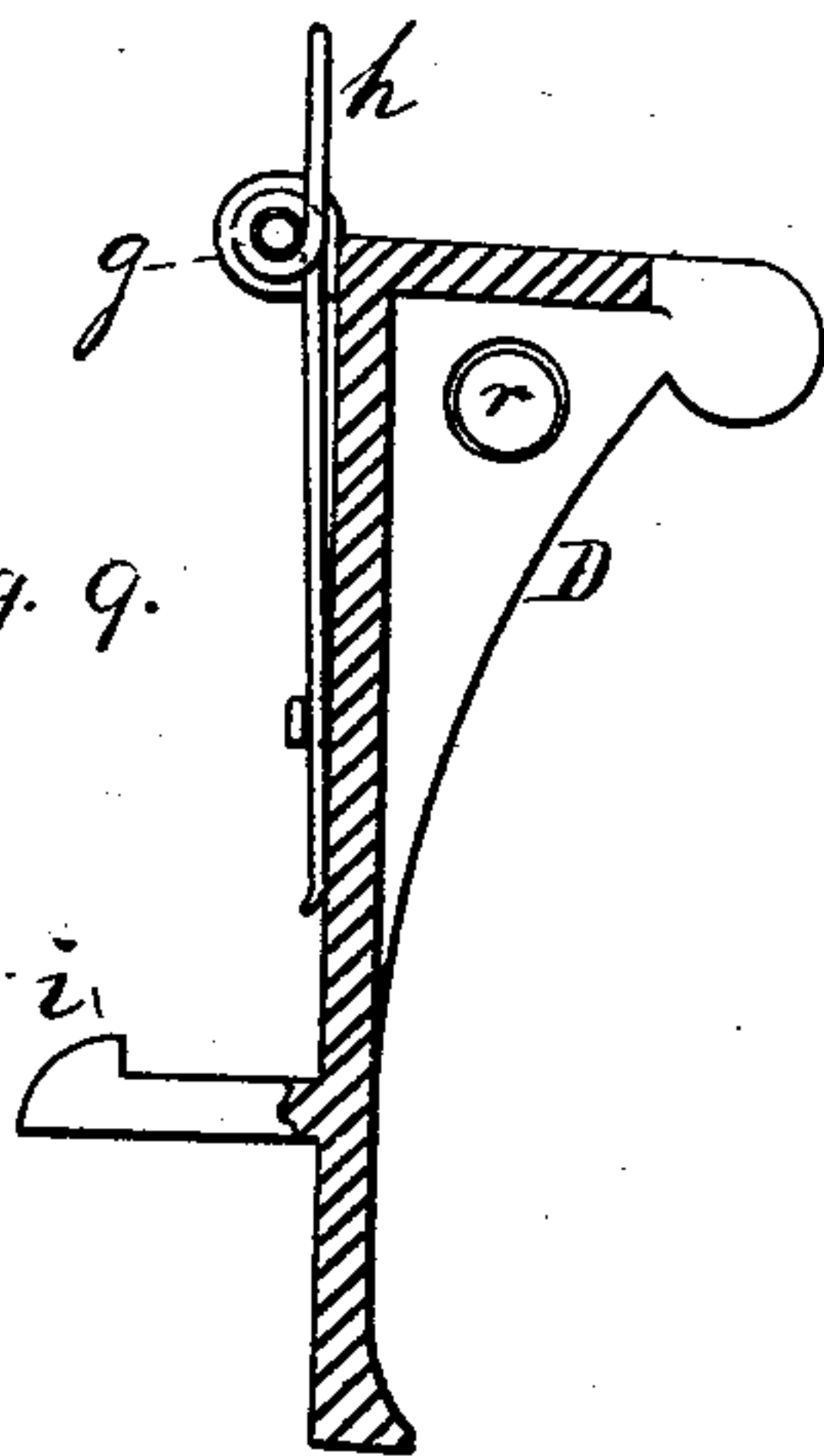


Fig. 10.

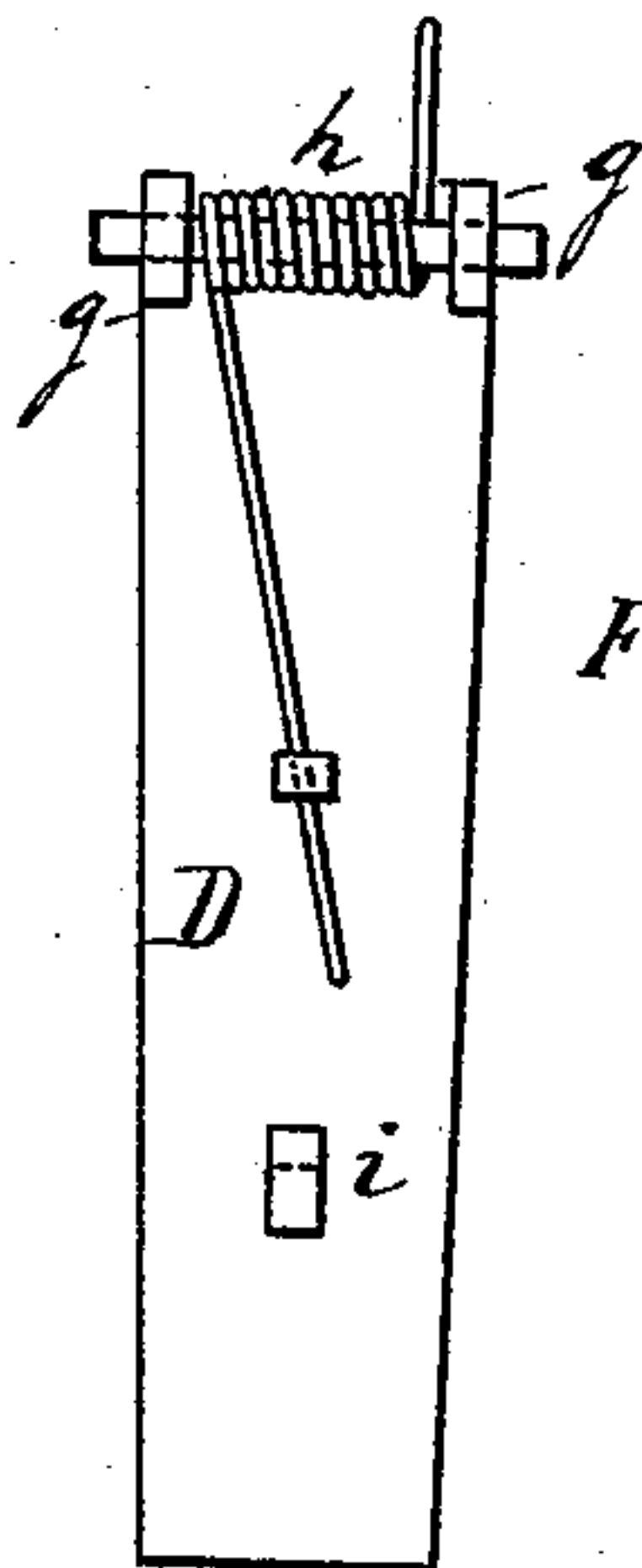
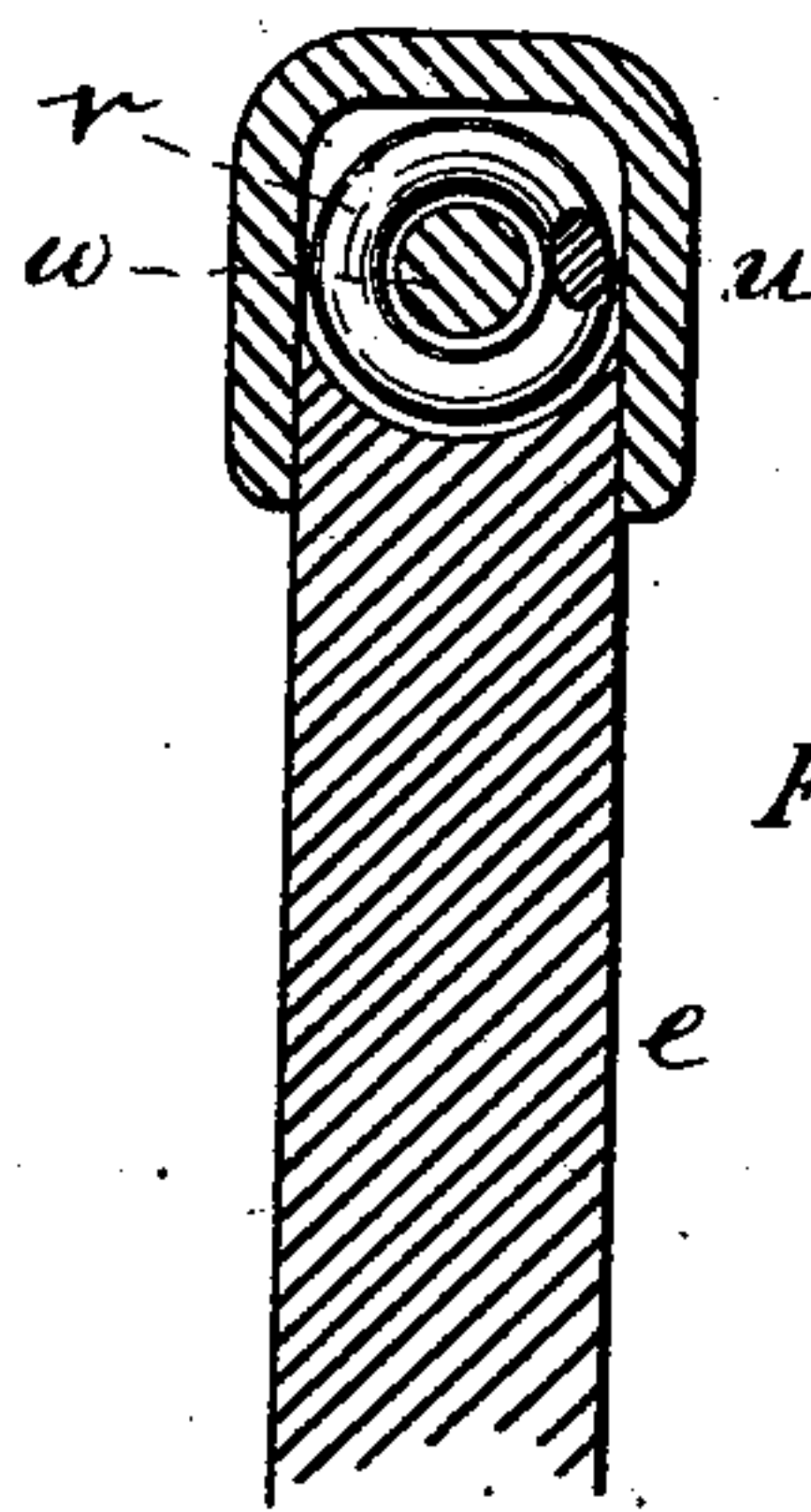


Fig. 11.



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# UNITED STATES PATENT OFFICE.

ROBERT F. MEISSNER, OF CHICAGO, ILLINOIS.

## FOLDING BEDSTEAD.

SPECIFICATION forming part of Letters Patent No. 277,046, dated May 8, 1883.

Application filed March 23, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT F. MEISSNER, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Folding Bedsteads; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to bedsteads that when not in use are folded up vertically in a manner to occupy the least possible space, and that can be readily extended; and it is my object to produce a bedstead that will fold into an alcove or closet to be entirely concealed.

My invention consists, mainly, in the device of providing the closet-door with strips, that may be either made rigid with the door-frame, for the door to be suspended therein on hinges and for the lock-bolt catch to be fixed, or that may be secured to the door, when such is pivoted on trunnions, at proper elevation for forming the swinging bed-bottom; in attaching to such door the side and end boards for forming the bedstead; in pivotal legs secured to the upper portion of the door, that are forced by springs to assume a perpendicular position, and that are turned against the face of the door and locked by a latch when the bedstead is folded, and in spiral springs arranged within tubes that form the upper edges of the side boards of the bedstead, such springs being connected with base-hooks by ropes guided over rollers in the head end of such side boards, all as more fully hereinafter described, and specifically claimed.

In the accompanying drawings, Figure 1 represents a front elevation of the door or folded bedstead; Fig. 2, a vertical cross-section of the bedstead when folded; Fig. 3, an elevation of the bedstead; Fig. 4, a plan of the bedstead extended; Fig. 5, a sectional plan of the bed when folded; Fig. 6, a detached view of one of the springs; Fig. 7, a cross-section of the door, showing one of the legs locked in its folded position; Fig. 8, a rear elevation of the door and locking device; Fig. 9, a sectional edge view of one of the legs detached; Fig. 10, a rear elevation of the same, and Fig. 11 a

cross section through one of the bedstead side rails, showing the tube and balance-spring.

Corresponding letters in the several figures of the drawings designate like parts.

A denotes the door-frame of the alcove or closet, and *a* the transom for ventilating.

B is the closet-door that forms the bottom of the bedstead, and has secured to its side edges, by wood-screws, strips *b*, which, when the wall-cavity is to be used as a closet, are detached from such door and secured to the door-frame for hanging the door to one of these strips *b* by hinges *c*, in the usual manner, and for fixing the mortise-plate for the door latch and bolt to the strip *b* at the opposite side. By providing these strips *b*, as will be seen, the hinges and lock of the door need not be detached or disturbed with arranging the door to form the bottom for a folding bedstead. This door B, having the strips *b* made rigid, is provided with trunnions *d*, that enter suitable sockets in frame A, for such door to swing vertically thereon, and upon the inward face of the door are secured the side boards, *e*, and end boards, *f*, for forming the bedstead.

Legs D D' have to their upper rear corners eyes *g*, and the upper portion of door B has mortises near its side edges, into which the eyes *g* are pivotally connected by pins, to swing thereon a quarter-revolution in a manner that the feet will lie flat against such door and form ornamental brackets thereon, with a curtain-rod, *r*, between, when the bedstead is folded, and to turn outward and form the feet for the extended end of the bedstead. Each foot D is provided with a wire spring, *h*, coiled around its fulcrum pin, one end of which leans against the door and its opposite end presses against the foot D to force and hold it to its perpendicular position; and to the lower end of these feet D are secured latch-hooks *i*, that, with folding such feet against the door, will project through holes in such door, to be engaged by latches *j j'*. Each latch *j j'* consists of a bar that is pivotally secured at its center against the rear face of the door, and both are coupled with their inward ends to the end of a vertical bolt, *E*, that is guided in box *l* and in eye-plate *m*, and is pushed upward by a spring, *n*, surrounding such bolt *E*. This bolt *E* and



latches  $j j'$  are connected by a rod,  $K$ , with a crank,  $p$ , that is secured upon the inwardly-projecting end of the trunnion of a knob,  $q$ . The chamfered end of bolt  $E$  will engage with a mortise in the under face of top of frame  $A$  for locking the bedstead in its folded position. With turning knob  $q$  the bolt  $E$  is redrawn for the bedstead to be lowered down, when at the same time the latches  $j$  and  $j'$  are disengaged from hooks  $i$  to release the feet  $D$ , that by springs  $h$  will be extended, ready to support the foot end of the bedstead. Both feet  $D$  are connected by a rod or tube,  $r$ , to which a curtain can be suspended.

The rear or head ends of side boards,  $e$ , of the bedstead have secured each two boards,  $s$ , between which are pivoted a series of rollers,  $t$ , that are placed on a quarter-circular line. The upper edges of side boards,  $e$ , are longitudinally concaved, and are covered each by a channel-plate or semicircular cap-plate,  $u$ , which, together with the concaved edge of the side board, will form a guide-tube for a spiral spring,  $v$ . A rod,  $w$ , is passed through spring  $v$ , and through an eye-bracket,  $x$ , that is fixed to side board,  $e$ , for the rear end of the spring to butt against, while the front end of rod  $w$  is coupled with one end of a rope,  $y$ , the opposite end of which is fastened to an eye or hook,  $z$ , that is secured to the floor inside of the closet. The forward ends of rods  $w$  are screw-threaded each for a nut,  $w'$ , that forms a collar against the end of spring  $v$ , to be adjusted for regulating such spring to have the proper tension for counterbalancing the swinging bedstead. With swinging the bedstead out of the closet, and with lowering it, the rope  $y$  will be brought successively to bear upon the several rollers  $t$ , and the spring will be contracted proportionally more as the bedstead assumes a more horizontal position, so as to counterbalance the weight of the same, and with folding the bedstead into the closet again the springs, by their expansive force, will assist in lifting the bedstead.

With this device a dwelling-house may have folding bedsteads that are entirely concealed, and that will save the tenant the expense of buying and moving about so much bulky furniture; and after the bed is folded into its receptacle no indication whatever is left of its presence, while through the transom  $a$  the bedding can be ventilated sufficiently, and in cases when parties prefer to use such a bed-receptacle as a closet the side and end boards,  $e f$ , are detached from door  $B$ , and the strips  $b$  are uncoupled from the door and secured to the door-frame.

A bedstead constructed and counterbalanced by springs in the manner described can be extended and folded with great ease, and will be as comfortable for the occupant as any other bed.

In the receptacle or closet behind the folded bedstead may be provided a space with hooks and shelves for clothing, &c.

What I claim is—

1. In a folding bedstead, the door-frame  $A$  and door  $B$ , with intermediate side strips,  $b$ , that have hinges  $c$ , lock latch-plate, and trunnions  $d$ , and are secured by wood-screws to either frame  $A$  or door  $B$ , substantially as and for the purpose set forth.

2. In a folding bedstead, the closet-door  $B$ , that forms the bedstead-bottom, swinging on trunnions  $d$ , and having attached side and end boards,  $e$  and  $f$ , as and for the purpose set forth.

3. In a folding bedstead, the door  $B$ , swinging on trunnions and forming the bedstead-bottom, such door being provided with pivotal legs  $D D'$ , pushed outward by springs  $h$ , and locked against the door by latch-hooks  $i$  and latches  $j$ , substantially as and for the purpose set forth.

4. In a folding bedstead, the door  $B$ , swinging on trunnions  $d$  and forming the bedstead-bottom, such door being provided with pivotal legs  $D D'$ , pushed out by springs  $h$ , and locked against the door by latch-hooks  $i$  and pivotal latch-bars  $j j'$ , connected with bolt  $E$ , that has spring  $n$ , and is again connected by rod  $K$  with crank  $p$  of knob  $q$ , all constructed and arranged substantially as described, to operate as specified.

5. In a vertically-folding bedstead, the counterbalancing-springs  $v$ , located within tubes formed to the upper edges of side boards,  $e$ , substantially as described and shown.

6. In a vertically-folding bedstead, the springs  $v$ , located within tubes that are formed to the upper edges of side boards,  $e$ , and butting against eye-brackets  $x$ , the rods  $w$ , passed through such springs, and eye-brackets having screw-nuts  $w'$ , and being connected with rope  $y$ , that is led over rollers  $t$  of the bedstead, and is secured to the base-hook  $z$ , the whole being constructed and arranged substantially as described, to operate as specified.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

ROBERT F. MEISSNER.

Witnesses:

LOUIS NOLTING,  
ADAM GEO. WHITE.