

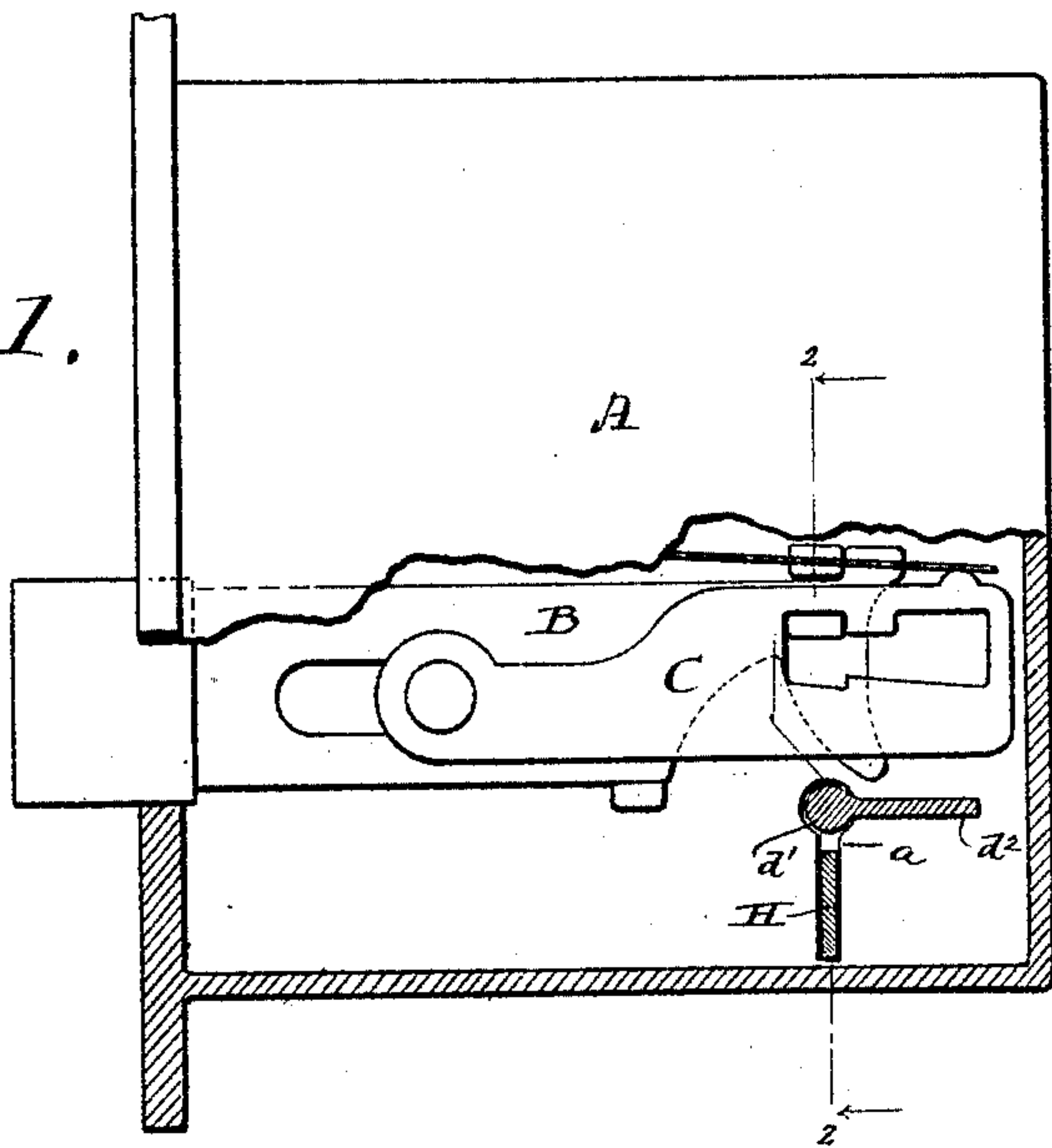
(No Model.)

J. M. FARMER.  
KEY FASTENER.

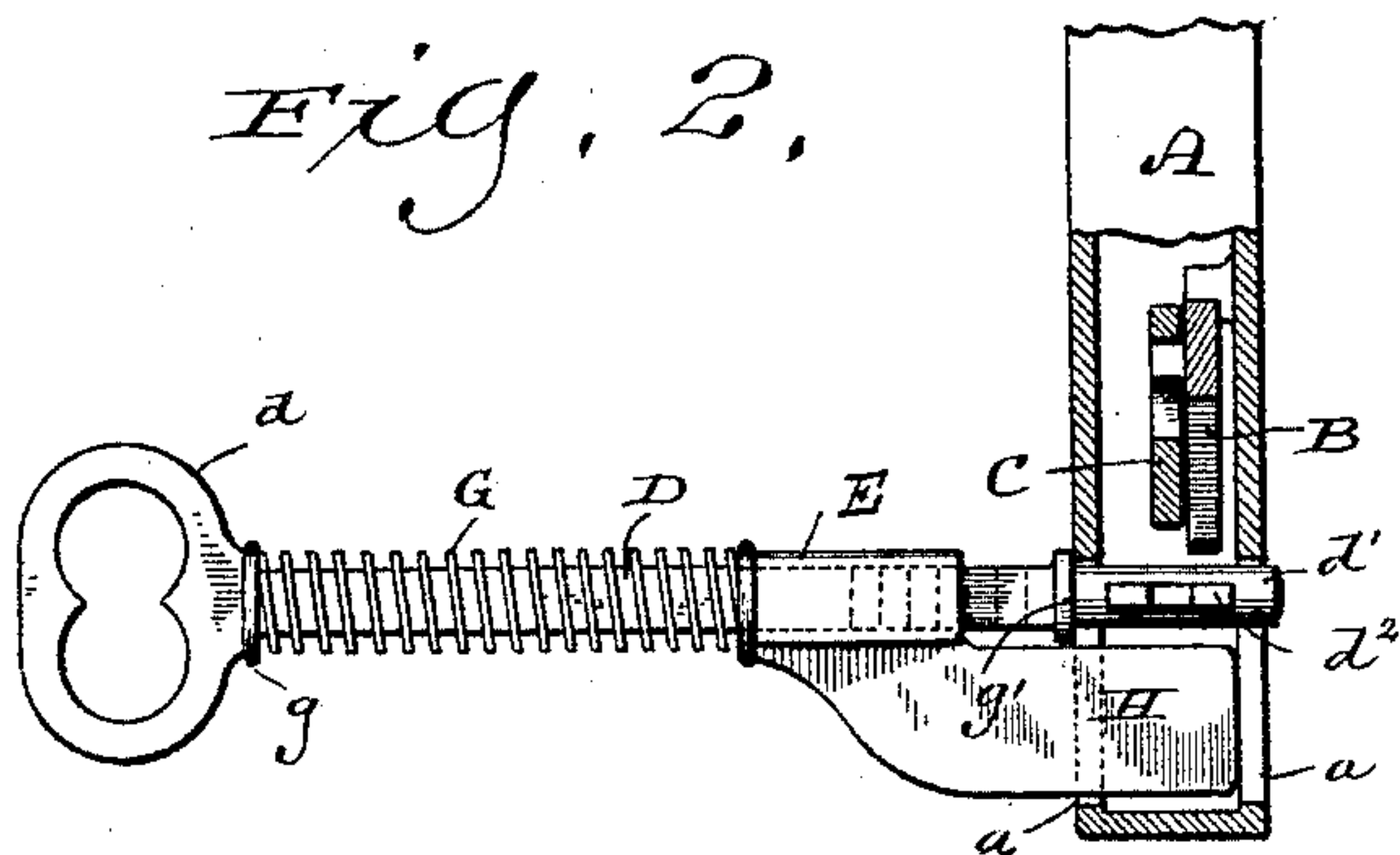
No. 452,779.

Patented May 26, 1891.

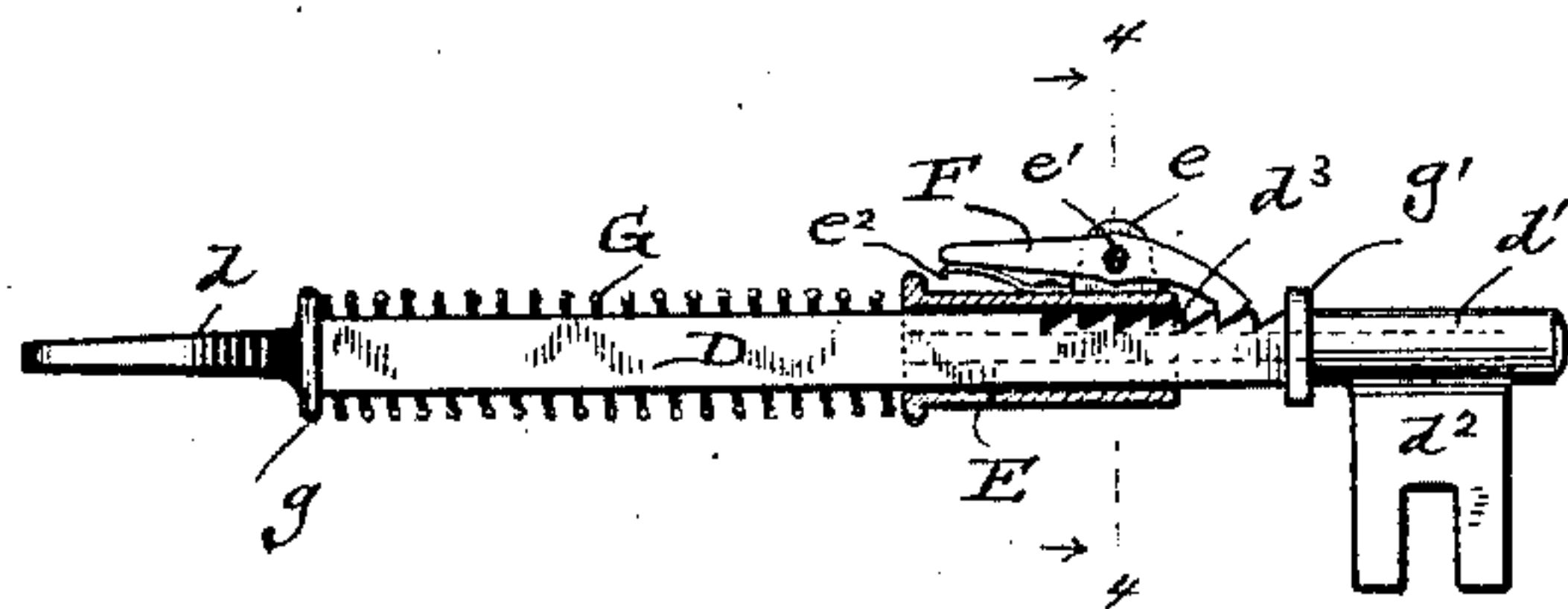
*Fig. 1.*



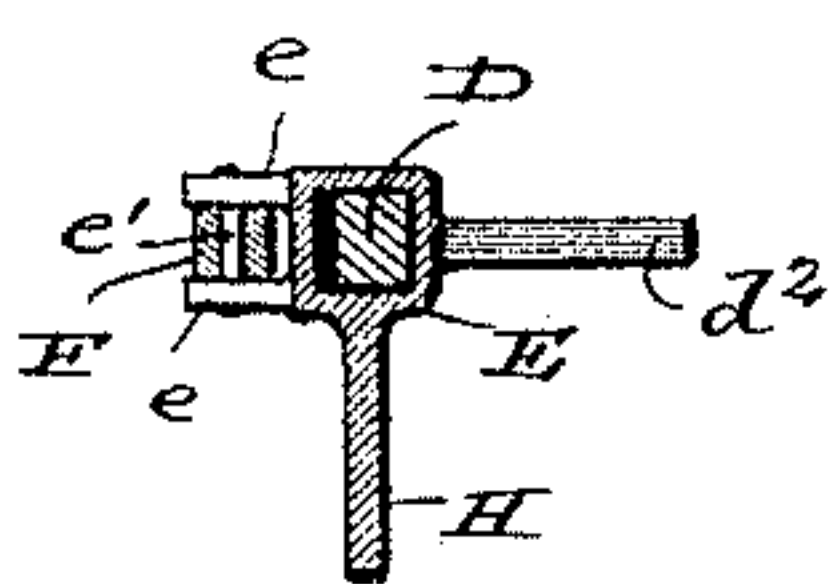
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses  
Geo. W. Young.  
Jno. L. Condon

Inventor  
Julius M. Farmer  
By H. G. Underwood  
Attorney



# UNITED STATES PATENT OFFICE.

JULIUS M. FARMER, OF MILWAUKEE, WISCONSIN, ASSIGNOR OF NINE-SIXTEENTHS TO MANNING H. CASE, OF SAME PLACE.

## KEY-FASTENER.

SPECIFICATION forming part of Letters Patent No. 452,779, dated May 26, 1891.

Application filed September 9, 1890. Serial No. 364,436. (No model.)

*To all whom it may concern:*

Be it known that I, JULIUS M. FARMER, of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Safety Attachment for Lock-Keys; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to keys which are employed in shooting or throwing the bolts of door-locks, &c.; and my invention consists in certain peculiar and novel features of construction and arrangement as hereinafter described, and pointed out in the appended claims.

In the drawings, Figure 1 is a side elevation of a lock with my improved key applied thereto, the casing of the lock being partly broken away to show the position of the key and its safety attachment in the lock. Fig. 2 is a sectional view of the same on the line 2 2 of Fig. 1. Fig. 3 is a side elevation of a key with my improvements applied thereto, the latter being shown partly in longitudinal section. Fig. 4 is a transverse section of the same on the line 4 4 of Fig. 3.

The objects of my invention are to provide means whereby keys shall be so retained in their locks as to prevent all possibility of removal therefrom by persons on the outside of the door, and whereby the key-hole shall be closed so as to prevent mischievous tampering with the lock as well as visual inspection of the apartment through the key-hole. These results I attain by virtue of the construction which I will now proceed to describe.

Referring by letter to the drawings, A designates the casing, B the bolt, and C the tumbler, of an ordinary door-lock. This particular form of lock is shown simply for purposes of illustration, and, as will be obvious from the ensuing description, my improved key is applicable to any form or style of lock having the usual key-holes *a a* in its casing aside from the internal locking mechanism.

D designates the stem, *d* the ring or loop, *d'* the barrel, and *d<sup>2</sup>* the bit, of an ordinary key. The stem of the key is preferably angular in cross-section and is formed on one side with a number of teeth or serrations *d<sup>3</sup>*.

E designates a tubular slide or sleeve which

surrounds the stem D and which is preferably cast in one piece into the required form and having lugs *e e* at one side, through which passes a pivot pin or rivet *e'*. This rivet or pin extends also through a pawl F midway of its length, the said pawl being thus interposed between the said lugs *e e*. The tip of the pawl F is held normally in engagement with the teeth or serrations *d<sup>3</sup>* of the stem D by a leaf-spring *e<sup>2</sup>*, one end of which is secured to the adjacent side of the slide E, while its free end presses upward against the free arm of the pawl. The outer end of the stem D is formed with a shoulder *g*, and between this shoulder and the adjacent end of the slide or sleeve E is interposed a spiral spring G, which surrounds the stem and which tends to force the slide toward a shoulder *g'* at the juncture of the stem D and barrel *d'* of the key. From one side of the slide E projects an elongated guard or keeper H, which is either formed upon or secured to the slide, and which, when the latter is in proper position upon the stem of the key, extends at right angles to the bit *d<sup>2</sup>* of said key. (See Figs. 1, 2, and 4.) This guard extends well forward from the slide, as is best shown in Fig. 2.

The operation of the above-described arrangement is as follows: The key is inserted into the key-hole in the usual manner and is given a partial or complete revolution so as to shoot or throw the bolt. This revolution brings the guard H into pendent position in alignment with the straight portion of the key-hole, and the spring G immediately throws the front end of the guard into said portion of the key-hole, the bit of the key extending at right angles to the said guard, as shown in Figs. 1, 2, and 4. The tip of the pawl F is held in engagement with one of the serrations *d<sup>3</sup>* adjacent to the shoulder *g'*, and thus prevents the guard or keeper from being forced backward out of the key-hole, while the position of the guard prevents the key from being turned axially by nippers or other instruments applied to the outer end of the barrel *d'*, this being due to the angular form of the stem and slide. When the door is to be unlocked, pressure is applied to the pawl F, so as to lift the tip of the pawl out of engagement with the serrations in the key-stem, and



the slide E is moved back so as to draw the guard out of the key-hole, whereupon the key can be readily turned to retract the bolt and so as to remove the key from the lock.

5 It is obvious that, if desired, the spring G may be dispensed with, as the pawl and serrations or ratchet will prevent the guard from being forced out of the key-hole, and other minor changes in details of construction may  
10 be made without departing from the essential spirit of my invention.

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

15 1. An improved attachment for lock-keys, comprising a slide adapted to work upon the stem of a key and carrying a guard to enter the key-hole, and having also a catch to engage the stem of the key and thus prevent  
20 displacement of the guard from within the key-hole, substantially as set forth.

2. The combination, with a lock-key having its stem provided with ratchet-teeth or serra-

tions, of a slide working upon the stem and carrying a spring-pressed pawl to engage said 25 teeth or serrations, and a guard carried by said slide and arranged to enter the key-hole, substantially as set forth.

3. The combination, with a lock-key having its stem provided with ratchet-teeth or serrations, of a slide working upon said stem and 30 having a spring-pressed pawl to engage said teeth or serrations, a guard carried by said slide and arranged to enter the key-hole, and a spring surrounding the key-stem and serving to move the slide so as to bring the guard 35 into the key-hole, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wis- 40 consin, in the presence of two witnesses.

JULIUS M. FARMER.

Witnesses:

H. G. UNDERWOOD,  
WM. KLUG.