

(No Model.)

W. R. KRAMER.

GATE.

No. 275,775.

Patented Apr. 10, 1883.

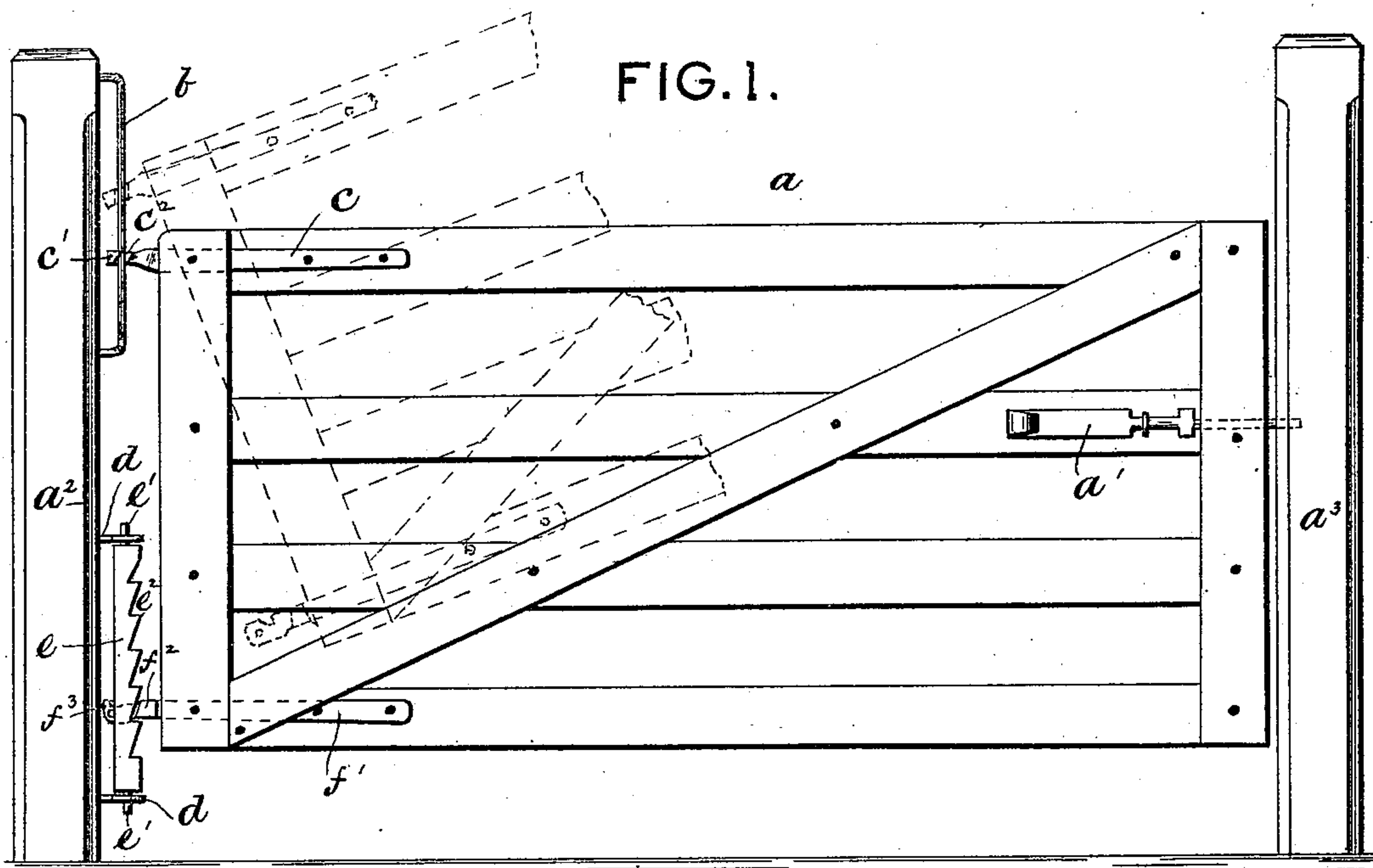


FIG. 2.

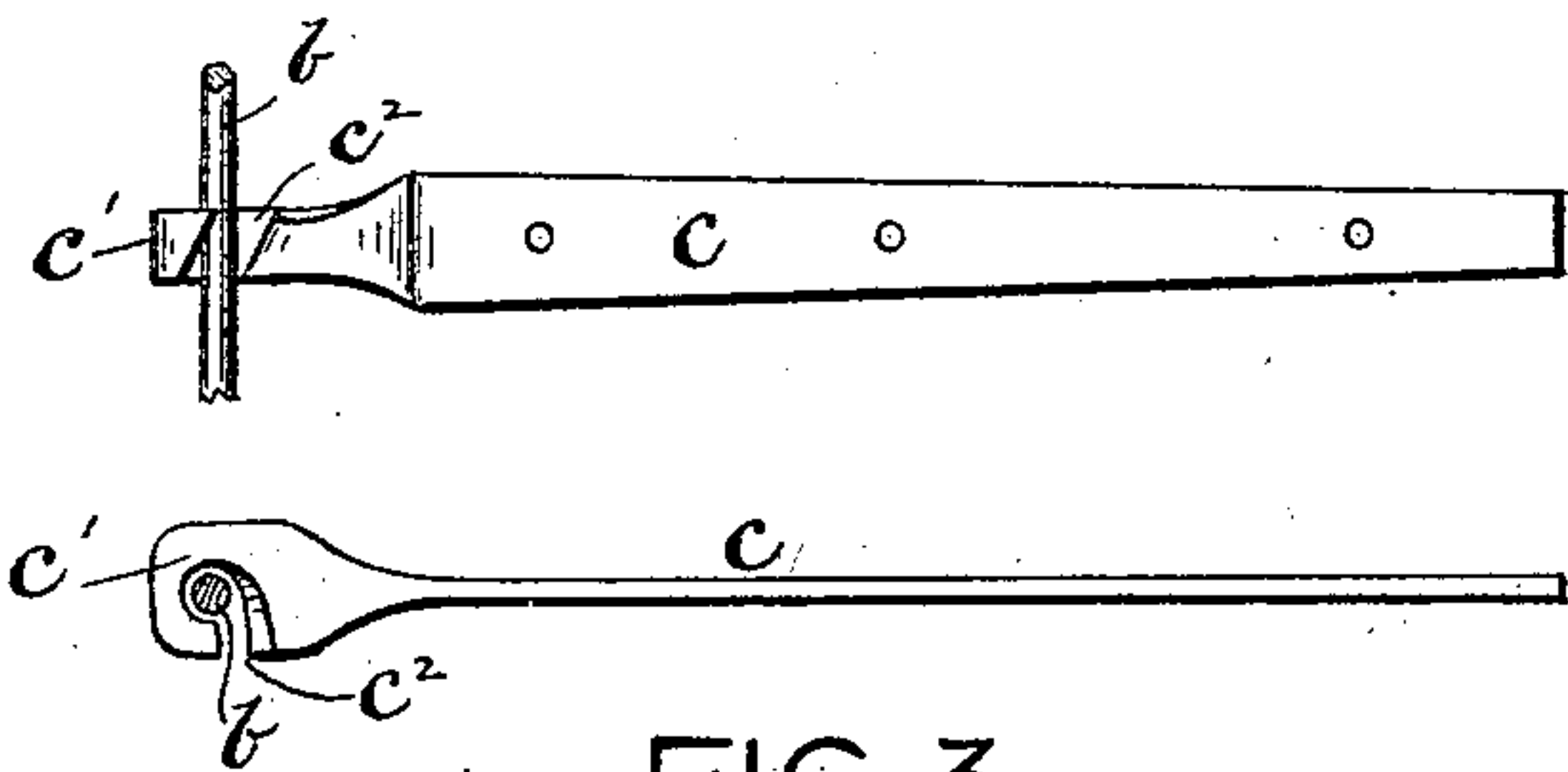


FIG. 3.

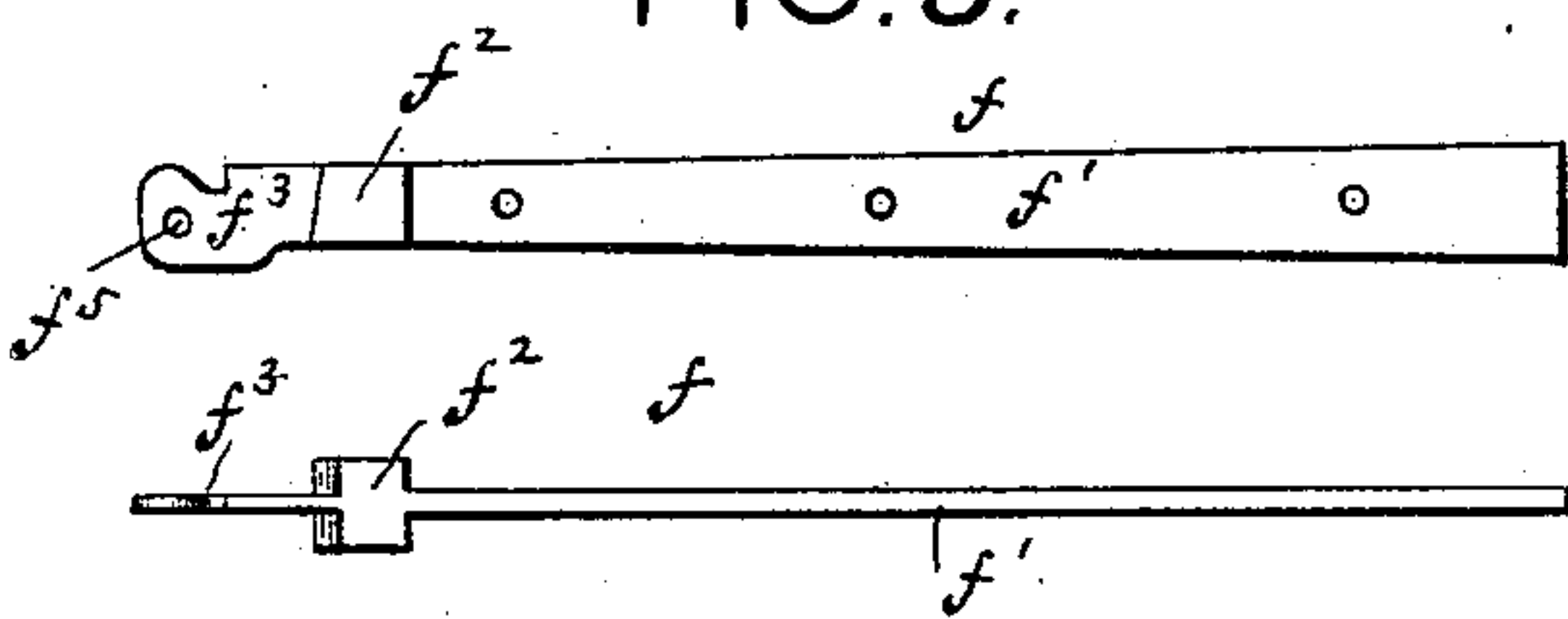
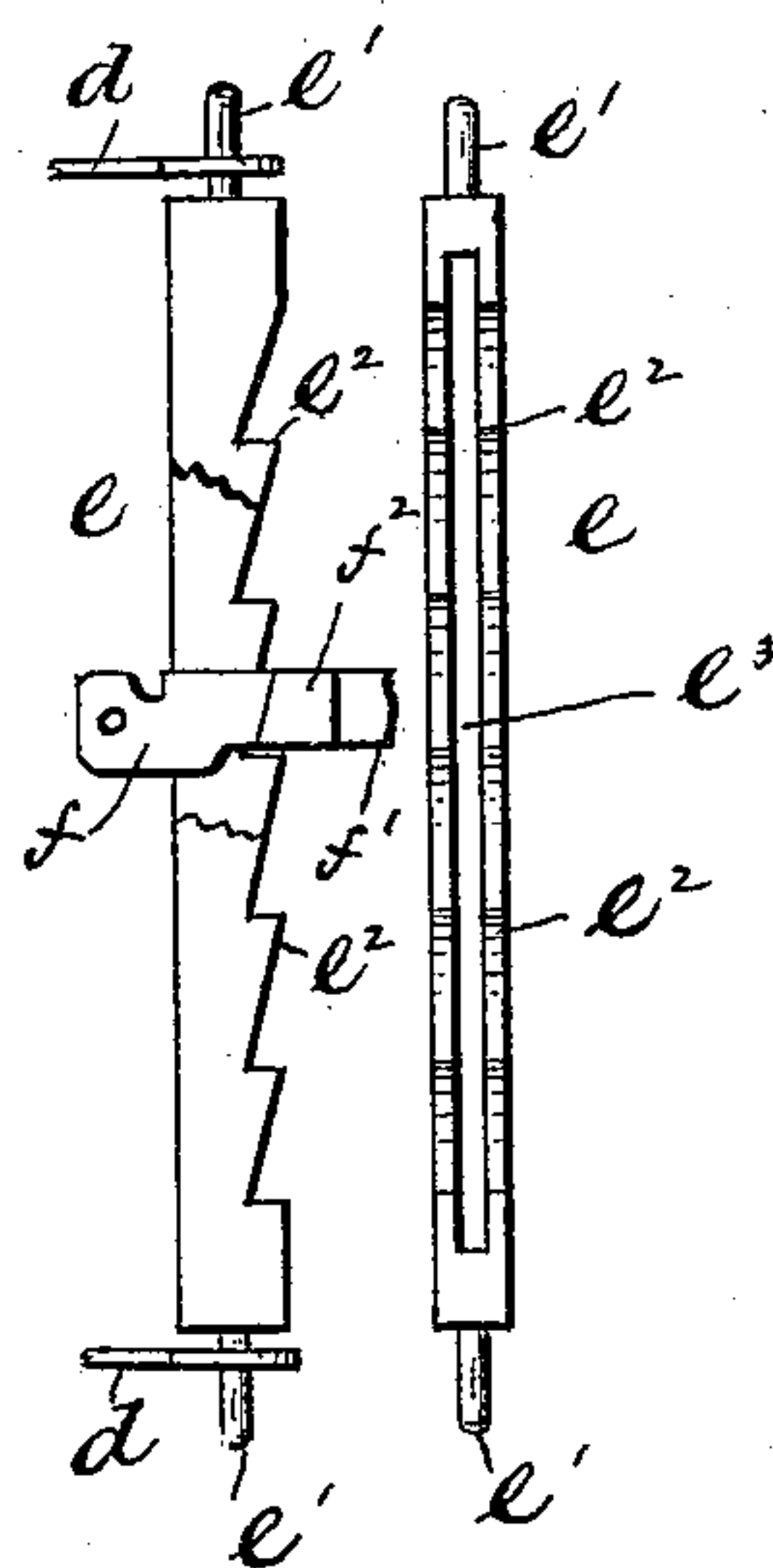


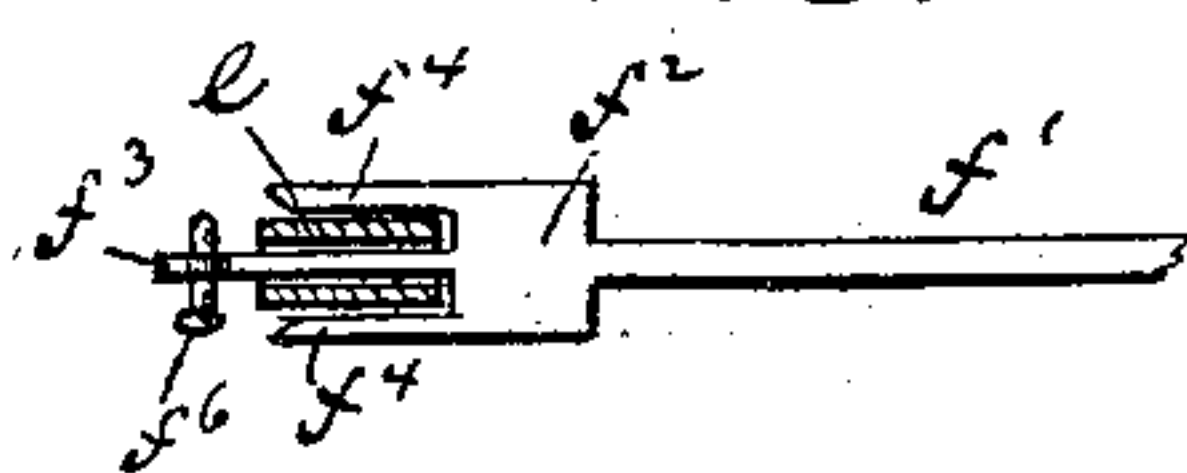
FIG. 4.



WITNESSES.

R. B. Turpin
R. W. Bishop.

FIG. 5.



INVENTOR.

William R. Kramer.

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ATTYS.

UNITED STATES PATENT OFFICE.

WILLIAM R. KRAMER, OF DELPHOS, OHIO.

GATE.

SPECIFICATION forming part of Letters Patent No. 275,775, dated April 10, 1883.

Application filed November 29, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. KRAMER, a citizen of the United States, residing at Delphos, in the county of Van Wert and State of Ohio, have invented certain new and useful Improvements in Gates; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in gates; and it consists in the construction, combination, and arrangement of the several parts, as will be hereinafter fully described, and specifically pointed out in the claims.

In the drawings, Figure 1 is a side view of my gate. Fig. 2 shows a side and edge view of the upper hinge-strap. Fig. 3 shows a side and edge view of the lower hinge-strap. Fig. 4 shows a side and edge view of the slotted pivoted rack-bar; and Fig. 5 shows an edge view, somewhat enlarged, of a slight modification of the lower hinge-strap, as will be hereinafter described.

a is the gate, provided with latch a' , and secured between the swing-post a^2 , to which it is hinged, and the butt-post a^3 , which is provided with a series of holes, into which the latch a' extends.

b is a rod, having its ends bent at right angles, and secured to the post near the top of the latter, so the rod will be held away from the post, as shown.

c is the upper hinge-strap, having its eye c' constructed with a slot, c^2 , leading into it, and arranged diagonally to the line of opening of the eye. This slot is made of a width equal to the diameter of the rod b , so that the eye can be detached from the said rod or attached thereto when the slot is brought in line with the said rod, as indicated in dotted lines at Fig. 1.

d d are lugs extended from the swing-post a^2 , and provided with suitable openings to form bearings for the rack-bar, hereinafter described.

e is the rack-bar, provided on its ends with gudgeons e' , and constructed with the notches

or teeth e^2 , and having the slot e^3 extending vertically almost its entire length, dividing the rack portion of the bars, as shown.

f is the lower hinge-strap, composed of the bar f' , the pawl portion f^2 , extended on either side thereof, the shank f^3 , extended forward from the pawl f^2 , and the guide and bracing jaws, extended forward from the outer edges of the pawl portion parallel with the shank f^3 , as shown in full lines, Fig. 5, and dotted lines, Fig. 3. The bar f' is secured to the gate a , and the pawl f^2 engages the teeth of the rack-bar. The shank f^3 extends through the slot e^3 , and is provided with a hole, f^5 , through which a pin, f^6 , is passed, in order to secure the strap to the rack-bar. This hole and pin are arranged in proper position to permit the shank to be drawn out sufficiently far to permit the desired vertical adjustment. By slotting the bar and passing the shank through the slot less friction is had and better results are obtained than where the rack-bar is embraced by a loop or similar construction. The jaws f^4 are beveled on their inner faces, so that they will move easily into place and rest close against the outer sides of the rack-bar, and prevent the spreading apart of the bars on opposite sides of the slot e^3 when the gate is given a sudden twist or throw, as will be understood on reference to the drawings. I have only shown these jaws in full lines in Fig. 5, and it will be understood that in some cases they might not be absolutely necessary, such as where other bracing and guiding mechanism is employed; but I regard the described construction as of great convenience and utility.

In operation it will be seen that by drawing the gate at the bottom so that the pawl f^2 can escape the rack-tooth with which it is engaged the gate can be adjusted up or down, as desired. The advantage of this adjustment is well known, it permitting the gate to swing clear of mud and snow, and being used to separate large and small animals, and also for other purposes the enumeration of which seems unnecessary.

By constructing the eye c' with the diagonal slot c^2 it will be seen that the gate will be held firmly so long as it is held in the position shown in Fig. 1; but if it be released at the

bottom by drawing the pin f^6 , and swung out to the position indicated in dotted lines, same figure, the bar b will slip through the slot c^2 and the gate is removed from its hinges. It will be understood that the eye would be useful when the gate is removably hinged at its lower side otherwise than as shown, and that the diagonally-slotted eye could be arranged at the lower instead of the upper side of the gate by slight mechanical changes.

Where so desired, instead of the pin f^6 an arm or short bar might be swiveled on the end of the shank, so it will pass through slot e^3 when turned into a vertical position, and when turned into a horizontal position will prevent the removal of the shank through the said slot.

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

1. The combination, substantially as de-

scribed, of the gate, the swing-post, the eye c' , constructed with the diagonal slot c^2 and shank c , and the rod b , or equivalent construction, as and for the purposes set forth.

2. In a gate-hinge, the combination of the bar e , provided with the vertical slot e^3 , pins e' , and teeth e^2 , formed on opposite sides of the slot e^3 , and the strap f , having the shoulders f^2 arranged on opposite sides thereof in position to engage the teeth e^2 , and having the extension f^2 , adapted to pass through and slide vertically in the slot e^3 , and the removable pin f^6 , and means for securing the strap f and bar e to the gate and post, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM R. KRAMER.

Witnesses:

SYLVESTER BROCK,
JOHN T. DETTERER.