

(No Model.)

C. GAGNON & L. LEFEBVRE.
LATCH.

No. 481,557.

Patented Aug. 30, 1892.

Fig. 1.

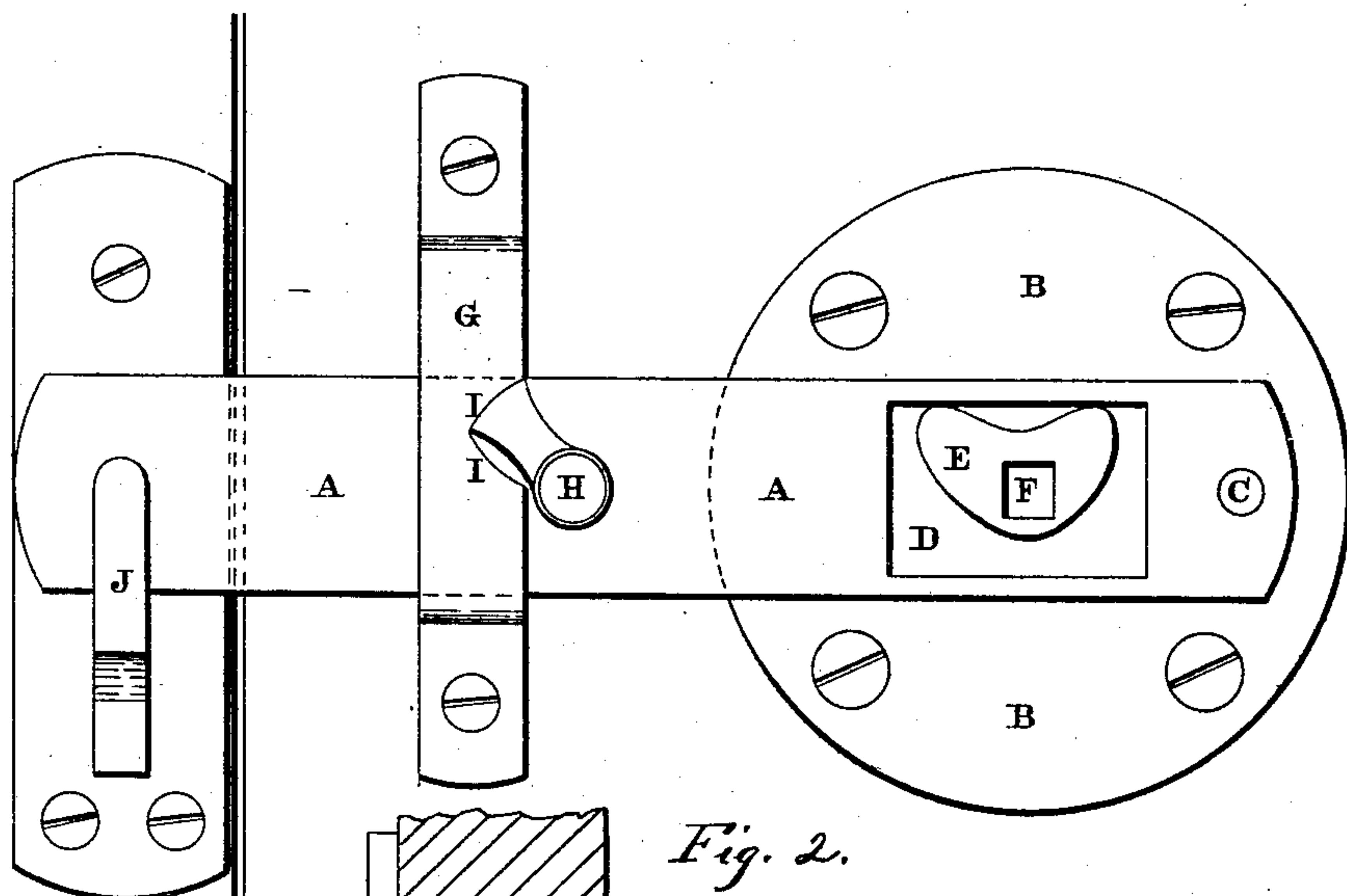
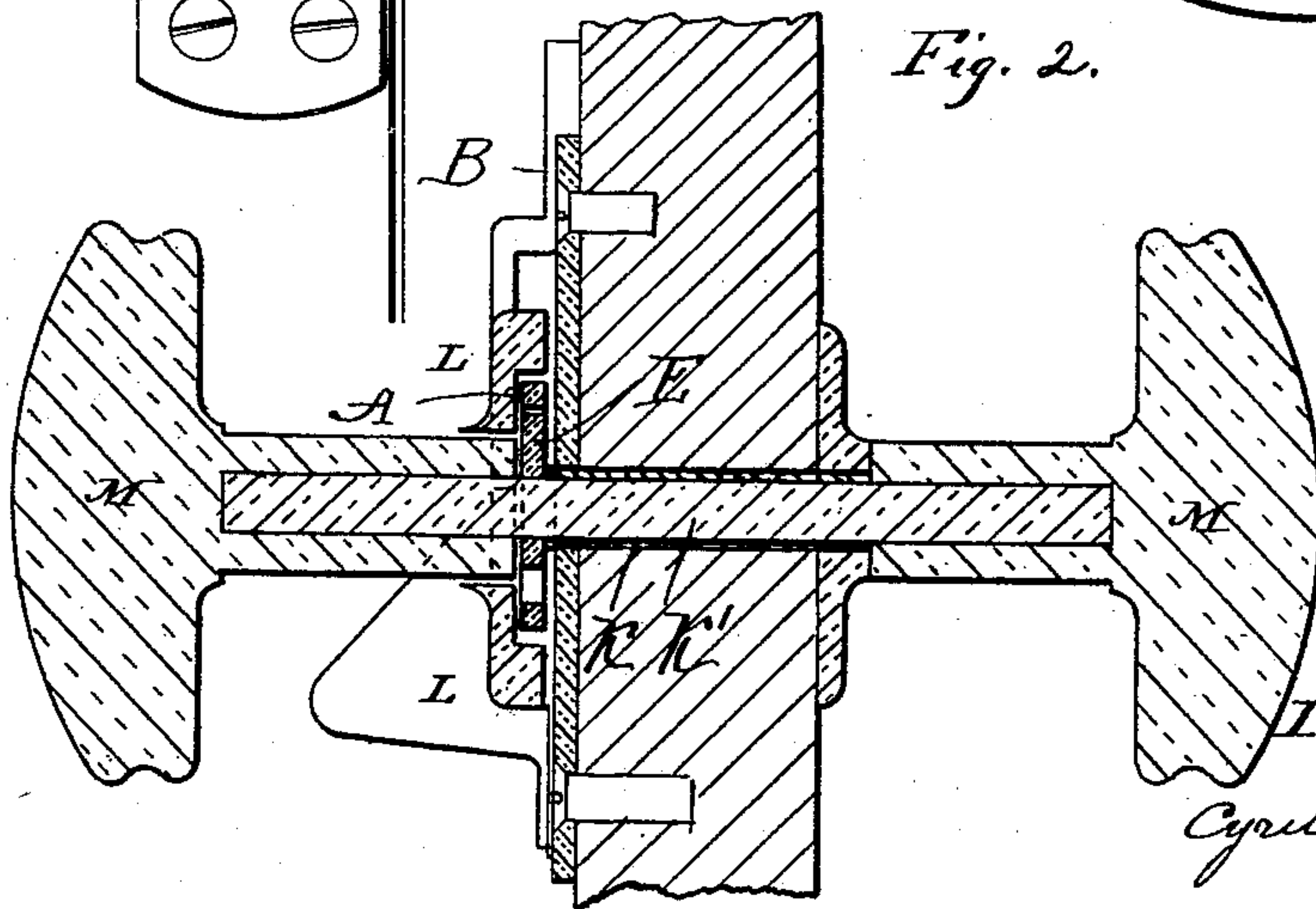


Fig. 2.



Inventors.

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Witnesses:

E. Sawyer.

D. J. Jones.

UNITED STATES PATENT OFFICE.

CYRILLE GAGNON AND LOUIS LEFEBVRE, OF MONTREAL, CANADA.

LATCH.

SPECIFICATION forming part of Letters Patent No. 481,557, dated August 30, 1892.

Application filed March 15, 1892. Serial No. 424,991. (No model.)

To all whom it may concern:

Be it known that we, CYRILLE GAGNON, joiner, and LOUIS LEFEBVRE, scale-manufacturer, of the city of Montreal, in the Province of Quebec, Canada, have jointly invented new and useful Improvements in Door-Latches; and we do hereby declare that the following is a full, clear, and exact description of the same.

Our invention consists in a latch operated by door-knobs, the same as door-locks.

Figure 1 is a front view of the latch as it appears when fixed on a door opening to the right, the knob and cover-plate being omitted.

Fig. 2 is a section of the same through the door-knob.

A is the latch proper or lever having at its inner end a rectangular opening, in which a cam operates to raise it out of its catch in order to open the door.

B is a disk of metal fastened to the door, on which the latch or lever is held by means of the rivet C. This disk has in its center a circular opening to receive the cylinder K of the cam E.

D is the rectangular opening in the latch A.

E is a double cam fixed on the cylinder K, with a square opening for the spindle K', Fig. 2, of the door-knob which in turning either way will carry around the cam and raise the lever out of the catch J, thus relieving the door, which can then be opened.

F is the square hole for the spindle through the cylinder carrying the double cam E.

G is the usual guide of thumb-latches bearing a notch I, so made as to prevent the motion of the latch or lever when the catch H is turned into it. This is to prevent the opening of the door from the outside.

H is the locking-catch.

J is the usual catch used in thumb-latches.

L is a cover plate or flange of metal adjusted over the inner end of the latch and filling the space around it to hide from view the working part of the invention.

M M are door-knobs adjusted in the usual way.

When the door is closed, the latch or lever

A will engage the catch J, and it may be locked by turning the catch H into the notch I. The door cannot then be opened from the outside, the catch H preventing the rising of the lever A out of the catch J. To open the door, the cam H is first turned up out of the notch I, then turning round the knobs M M either to the right or left from the inside or the outside the cam E will act on the upper side of the rectangular opening D and raise the lever out of the catch J, thus allowing the operator to open the door. In case of a door opening to the left, the same latch may be used simply by inverting the cam E and the guide G.

By forming the opening in the latch close to the pivot C and arranging the double cam entirely within the opening and in the same plane with the latch the parts can be easily covered and a neat arrangement secured, the flange or plate L, before mentioned, serving this purpose and extending over the latch, its opening, and the cam therein.

We do not claim as our invention the latch proper, nor the guide, nor the catch, nor the cam, for we know that these have been in use for a long period; but

We claim as our invention—

In combination, the plate B, the latch having an opening therein, the cam arranged entirely within the said opening and in the same plane with the latch, the cover-plate extending over the latch at its opening to cover the same and the cam, the said latch projecting at one side of the cover-plate to engage with the keeper and projecting on the other side of said plate, the latter projecting end being pivoted to the plate B, substantially as described.

In witness whereof we have hereunto set our hands in presence of two witnesses.

his
CYRILLE X GAGNON.
mark
LOUIS LEFEBVRE.

Witnesses:

L. A. U. BEAUDRY,
L. LE GRAND.