

O. Billings,
Trunk Lock.
N^o 24,075. Patented May 17, 1859.

Fig 1

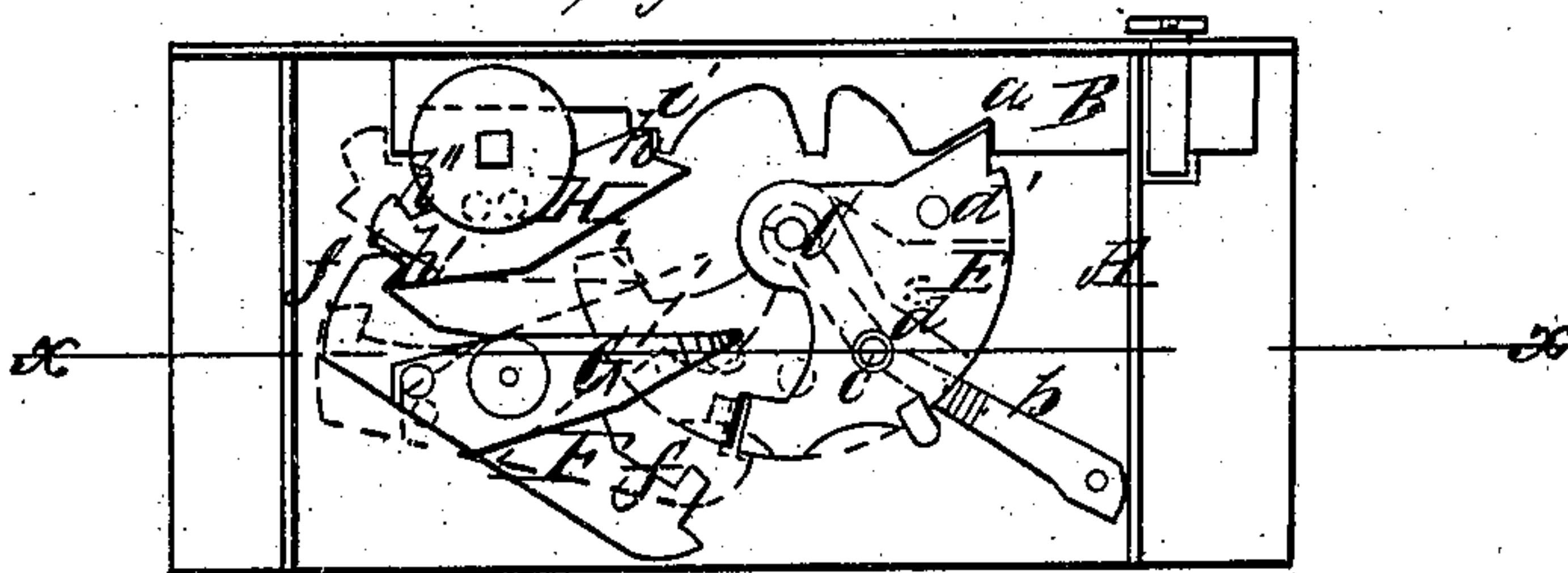


Fig 2

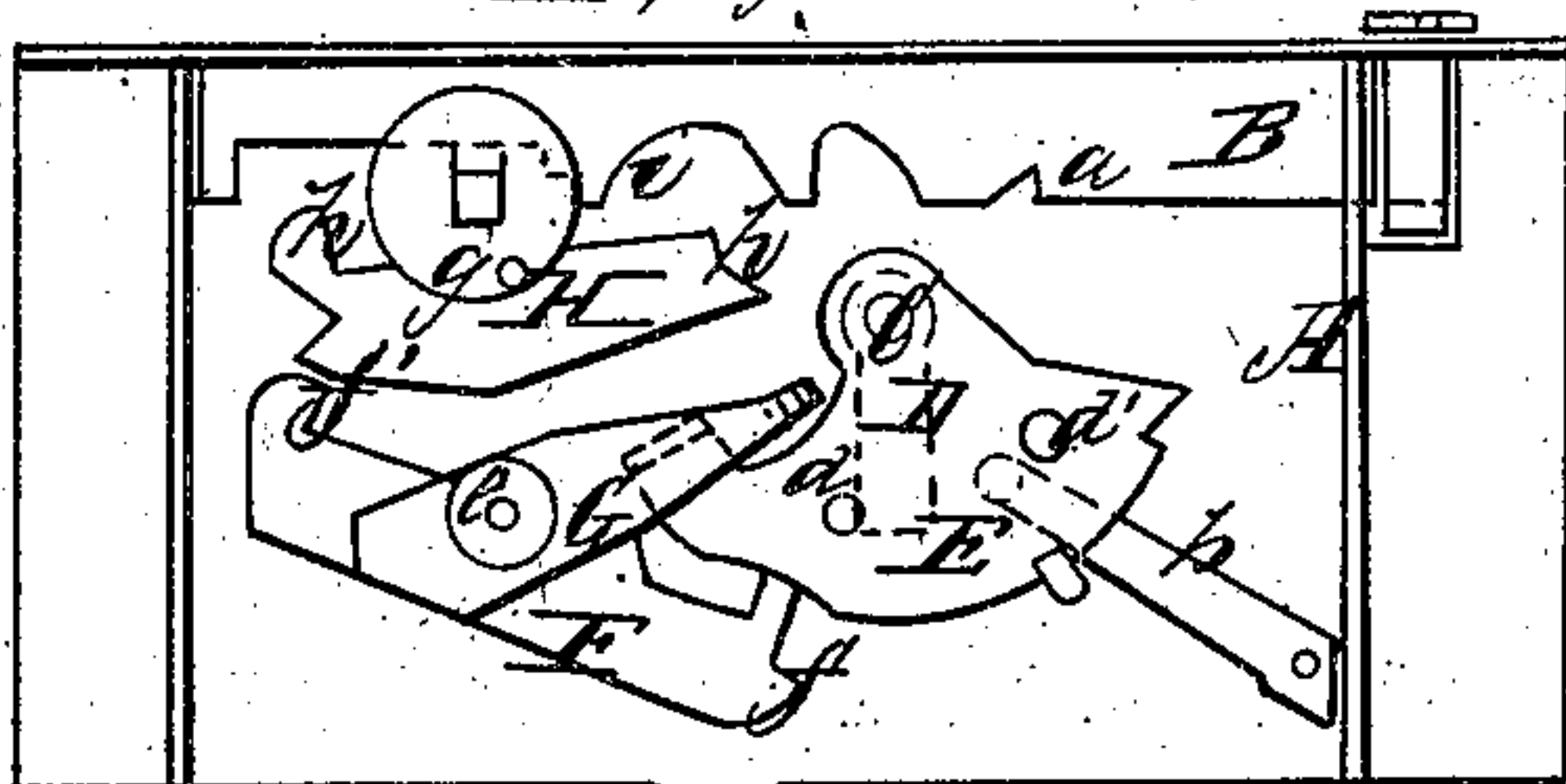
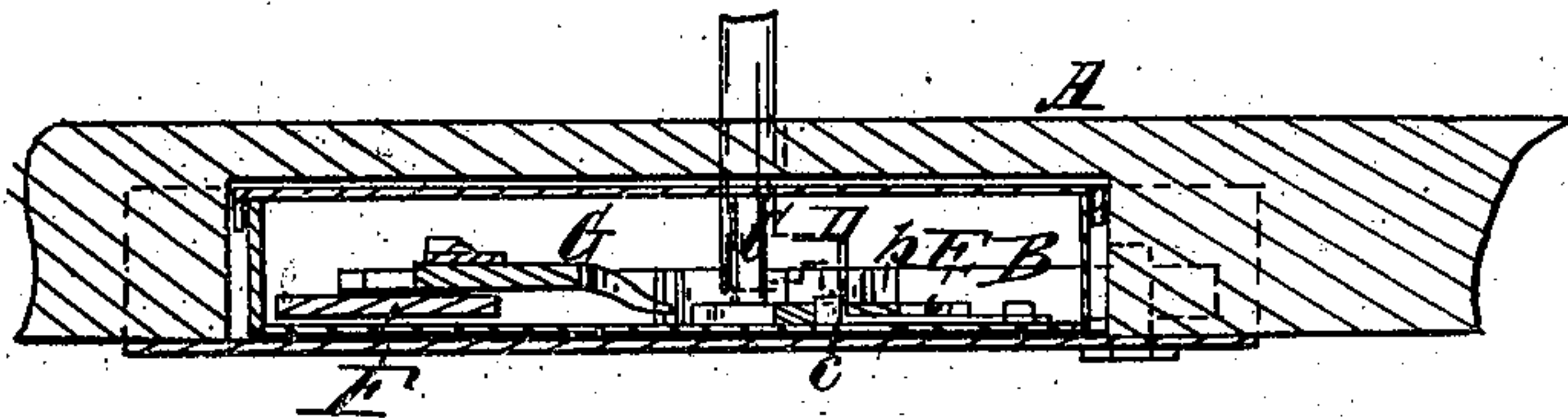


Fig 3.



Witnesses:
G. W. Noble
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UNITED STATES PATENT OFFICE.

ORSON BILLINGS, OF LA GRANGE, OHIO, ASSIGNOR TO HIMSELF, AND MORRIS TRAVER,
OF CLINTON HOLLOW, NEW YORK.

LOCK.

Specification of Letters Patent No. 24,075, dated May 17, 1859.

To all whom it may concern:

Be it known that I, ORSON BILLINGS, of La Grange, in the county of Lorain and State of Ohio, have invented a new and Improved Lock; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figures 1 and 2 are internal views of a lock constructed according to my invention and showing two different positions of the parts. Fig. 3, is a horizontal section of same taken in the line *x, x*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists in the employment or use of a series of guards arranged relatively with each other and with a bolt as hereinafter fully shown and described, whereby the lock is prevented from being picked or even opened with a proper key, unless the operator has a knowledge of the construction and arrangement of the parts.

The invention is more especially designed for the doors of dwelling houses and for use in these cases where an economical and secure lock is desired.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents the case of the lock, which may be of the usual rectangular form and B, is the bolt fitted therein between proper guides in the ordinary or any suitable way.

C, is a pintle on which the key D, works when inserted in the lock, and on this pintle a sector plate E, is fitted and allowed to turn freely. The upper end or corner of this plate E, when the lock is in a locked state, fits in a notch *a*, in the under side of the bolt B, as shown in Fig. 1. The guard or plate E, is, when not acted upon by the key D, retained in this position by a spring *b*, having a pin *c*, at its end which pin fits in a hole *d*, in the plate, see more particularly Fig. 3.

F, is a guard or plate which is fitted on a pivot *e*, in the case A, and allowed to turn freely thereon. This guard plate has projections *f*, *f'*, one at each end, the form of which is shown clearly in Figs. 1 and 2, and to the guard plate an arm G, is attached, which projects over the plane of the movement of the guard or plate E.

H, is a guard or plate fitted on a pivot *g*, and provided with notches *h*, *h'*, *h''*,—two notches *h'*, *h''*, at one end one notch *h*, at the other. When the lock is in a locked state and the guard plate E, engaged with the bolt B, the projection *f'*, of the plate F, is fitted within the notch *h*, at the outer end of the guard or plate G, and the notch *h'*, at the inner end of said plate receives a projection *i*, on the bolt B. The bolt B, therefore it will be seen is guarded or retained in a locked state by the guards or plates E, H, and in order to unlock the lock, said guards or plates must be moved so as to be free from the bolt that the latter may be shoved back by the action of the key D. In order to unlock the lock the end of the bit of the key is pressed against the pin *c*, so as to free the guard E, and the key is then turned from right to left so that the upper corner of the guard E, will be free from the bolt B, as shown in dotted lines, Fig. 1. The bit of the key is then withdrawn and is made to act against the arm G, of the guard F, said arm being shoved upward so as to free the projection *f'*, from the notch *h'*, in guard H. This second position of the guard F, is also shown by dotted lines. The bit of the key is then turned so as to force down the inner end of the guard H, free from the bolt B, and the latter may then be shoved back by the action of the key. The position of the guards or plates when the lock is in an unlocked state is shown in Fig. 2.

In turning the guards or plates to admit of the unlocking of the lock a perfect knowledge of the parts is necessary, as each plate can be moved only a certain distance in order to effect the desired end, for instance, if the guard E, be turned too far to the left the pin *c*, will catch into a hole *d'*, which will retain the inner end of plate E, against plate H, and prevent the movement of the same, see red lines Fig. 1. If guard F, is moved first its projection *f*, is thrown directly in the path of the movement of guard E, as shown by the dotted lines in Fig. 1, thereby preventing the movement of guard E. And if the guard H, is moved too far down its outer notch *h''*, will catch over the inner end of the bolt B, as shown also by dotted lines in Fig. 1.

It will be seen from the above description that the lock cannot be unlocked unless the

operator has a knowledge of its construction.

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

1. The combination of the guards or plates E, F, H, constructed and arranged relatively with each other and the bolt B, to operate as and for the purpose set forth.

2. I also claim the spring stops c, when applied to the guard or plate E, and the latter is used in connection with its fellow guards F, H, for the purpose described.

ORSON BILLINGS.

Witnesses:

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GEO. W. NOBLE.