(No Model.)

C. S. LEWIS & G. H. BLAKESLEY.

LOCK.

No. 270,318. Patented Jan. 9, 1883.

Fig. 1.

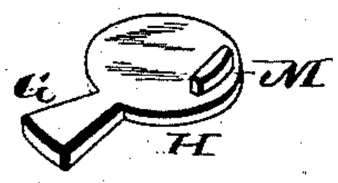


Fig. 2.

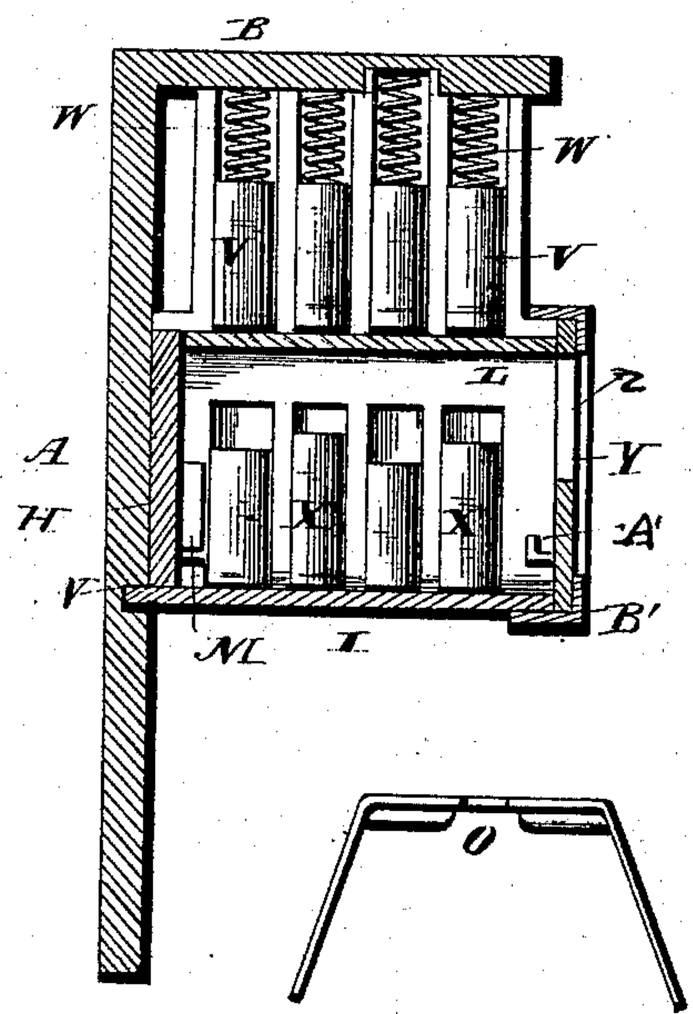


Fig. 3.

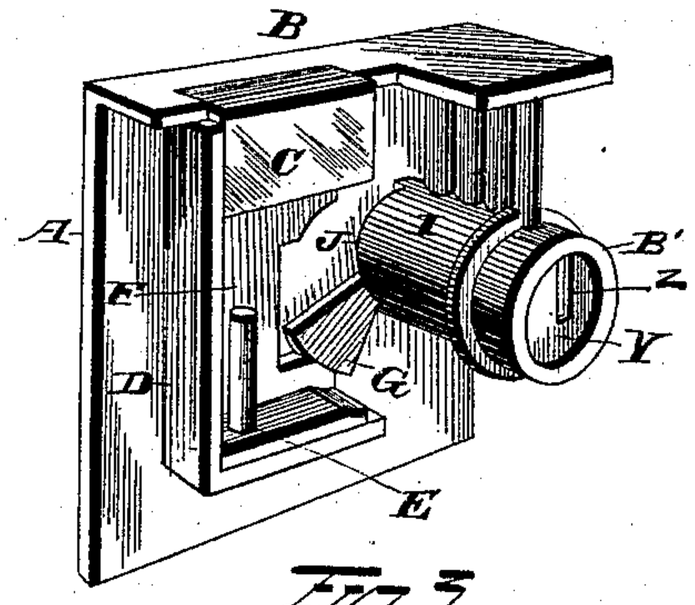
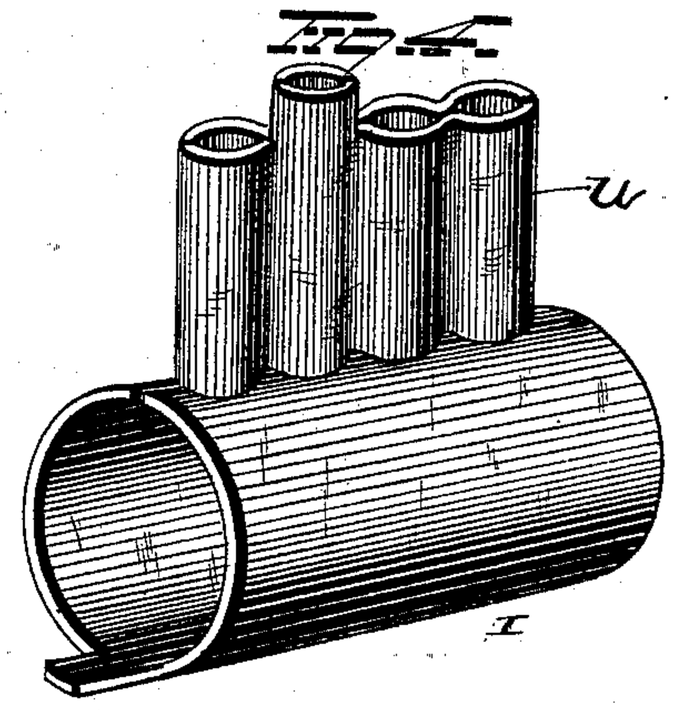


Fig. 4.



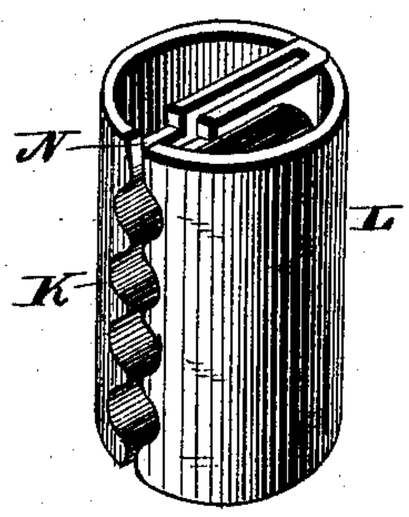
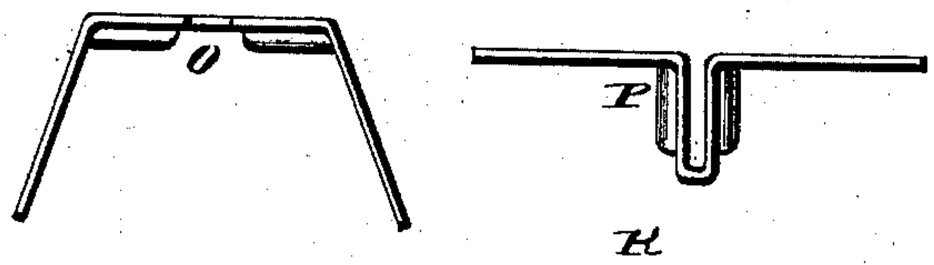


Fig. 5.



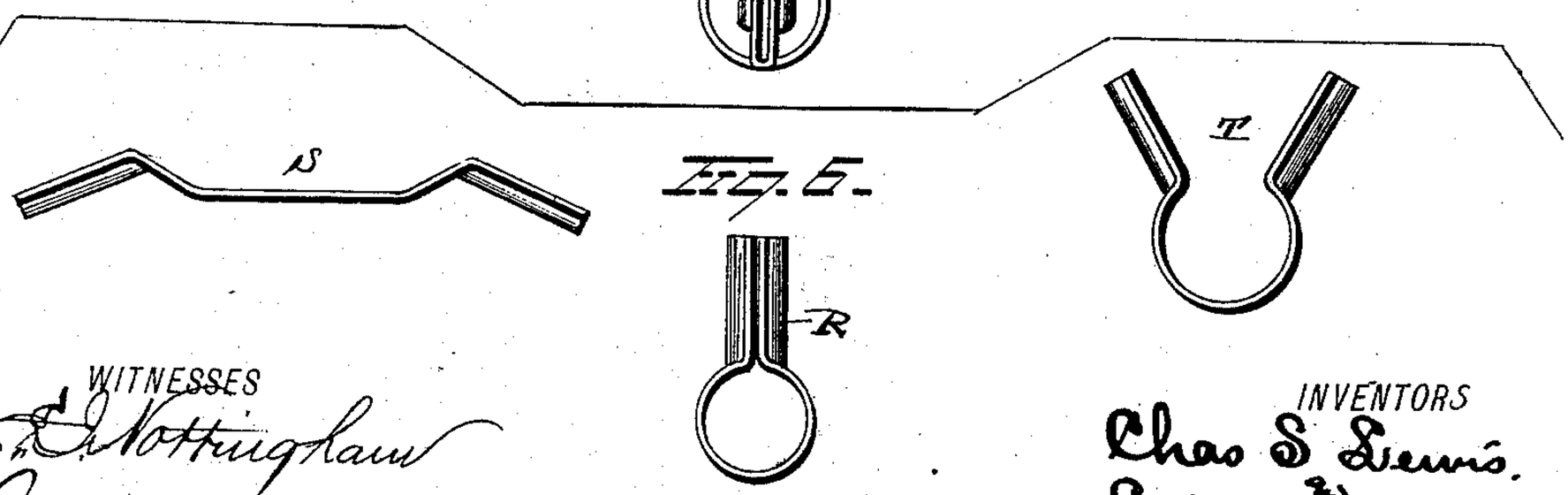


Fig. 6.

WITNESSES

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UNITED STATES PATENT OFFICE.

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LOCK.

SPECIFICATION forming part of Letters Patent No. 270,318, dated January 9, 1883.

Application filed July 13, 1882. (No model.)

To all whom it may concern:

Be it known that we, CHARLES S. LEWIS, of Waterbury, in the county of New Haven and State of Connecticut, and GILBERT H. BLAKESLEY, of Bristol, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Locks; and we do hereby 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 pertains to make and use the same.

Our invention relates to an improvement on locks, and more particularly to that class thereof depending in operation upon the actuation of a series of suitably-arranged pins, the object of the present invention being to improve the construction of the pin-case and cylinder, to ascribe a complete revolution to the cylinder and key, and to provide an improved lazy-lug.

With these objects in view our invention consists in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of a lock constructed in accordance with our invention. Fig. 2 is a view thereof in vertical cross-section. Fig. 3 is a detached view of the cylinder. Fig. 4 is a detached view of the pin-case. Fig. 5 illustrates the several manipulations to which a suitable blank is subjected during the process of forming the cylinder, and Fig. 6 illustrates the several manipulations to which a suitable blank is subjected during the process of forming the pin-case. Fig. 7 is a view of the lazy-lug, and Fig. 8 is a pin-case for a modified form of lock.

The back plate, A, and the face-plate B, which are integral with each other, are preferably made of iron; but brass, steel, or other suitable metal may be employed in lieu thereof. The lock-bolt C is guided in its movements by a two-armed plate, D, attached to the rear face of the back plate and by a pin, E, secured to the lower arm of the said plate D and entering an aperture in the upturned end of the bolt-shank F, one edge of which is appropriately cut away to receive the arm G of the lazy-lug H, which is inclosed in the pin-case I, the arm G extending through a slot, J, formed in the inner end thereof. The said lug is actuated in operating the lock-bolt by the engagement of the closed end of the key-pin chamber K of the cylinder L, with a suitable boss, M, formed upon or secured to the lug. In order that a full revolution may be ascribed to the said cylinder and key, the upper and open end of the key-pin chamber is slotted, as at N, to avoid an engagement with the boss when in the motion of the cylinder this portion of the key-pin chamber is brought into opposition with it.

With reference now to the construction of the cylinder and pin-case, they are formed by subjecting suitable sheet-metal blanks to appropriate manipulation.

In forming the cylinder L a blank of suitable dimensions is struck up into the form designated by O in Fig. 5 of the drawings. A second operation causes it to assume the shape designated by P in the same figure. A third manipulation develops the form Q, while a fourth operation results in the completed cylinder K.

In forming the pin-case R a suitable blank is struck up into the form designated by S in Fig. 6 of the drawings. A second operation brings the blank into the form designated by T, while a third operation develops the completed pin-case R. The semicircular flutings U, formed in the blanks of the cylinders, as well as those of the pin-cases, constitute, when brought together, circular chambers to receive the pins V and their actuating-springs W and the key-pins X, which are operated by the key of the lock. A disk, Y, provided with a key-hole, Z, and with a shoulder, A′, is placed over the outer end of cylinder and partakes of all motion imparted thereto, the said disk being held in place by a suitable annulus, B′.

In forming the cylinder and pin-case the manipulation which has been indicated in Figs. 5 and 6 of the drawings may be substituted by any other manipulation which may in practice be found desirable.

If desired, also, the pin-case may be constructed as shown in Fig. 8 of the drawings,

wherein it is shown as being adapted to receive two independent sets of springs and pins to operate in conjunction with a single set of key-pins located in a cylinder similar to that represented by K. This modified pin-case may be made of one or two pieces of metal. We would therefore have it understood that we do not limit ourselves to the exact construction herein shown and described, but hold ourselves at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of our invention.

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a lock, a cylinder formed of struck-up sheet metal, the central portion of the blank being provided with two series of flutings, which, being folded together, constitute pin-receptacles, while the ends of the blank are bent to inclose the pin-receptacles and form the cylinder, substantially as set forth.

2. In a lock, a pin-case made of struck-up sheet metal, the central portion of the sheet-metal blank constituting the cylindrical portion of the pin-case, while the ends of the blank are fluted to form the pin-receptacles, substantially as set forth.

3. In a lock, the combination, with a cylinder the blank of which is folded within the cylinder to constitute pin-receptacles, said folded portion being partially cut away at its inner end, of a lazy-lug located against the inner end of the cylinder, said lazy-lug being provided with a boss, which enters the space between the cylinders and the inclosed portion, substantially as set forth.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

CHARLES S. LEWIS.
GILBERT H. BLAKESLEY.

Witnesses:
J. H. WAY,
CHAS. GRAY.