

(No Model.)

2 Sheets—Sheet 1.

F. MELOCHE, Jr. & C. MELOCHE.
COMBINATION LOCK.

No. 516,685.

Patented Mar. 20, 1894.

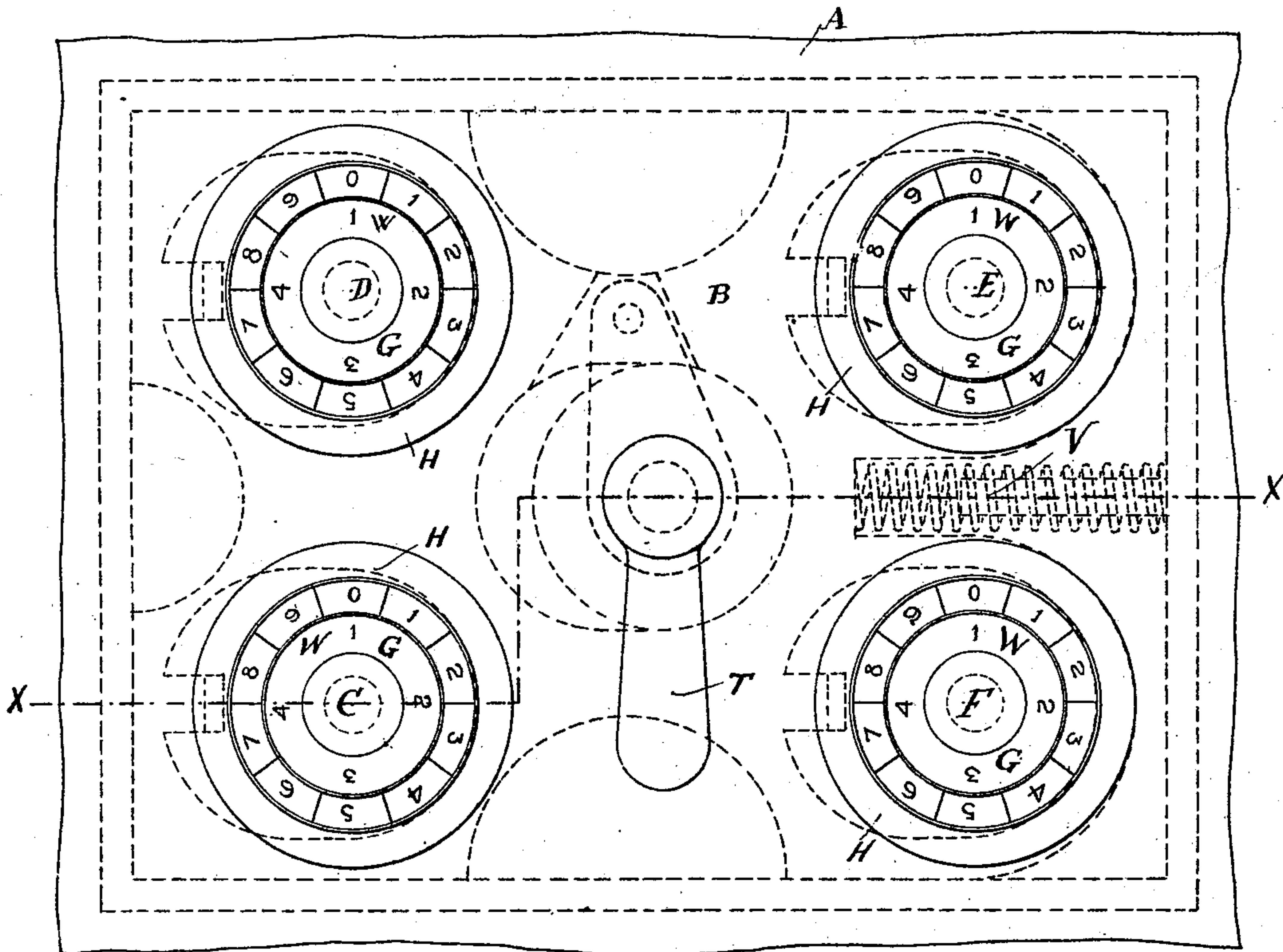


Fig. 1.

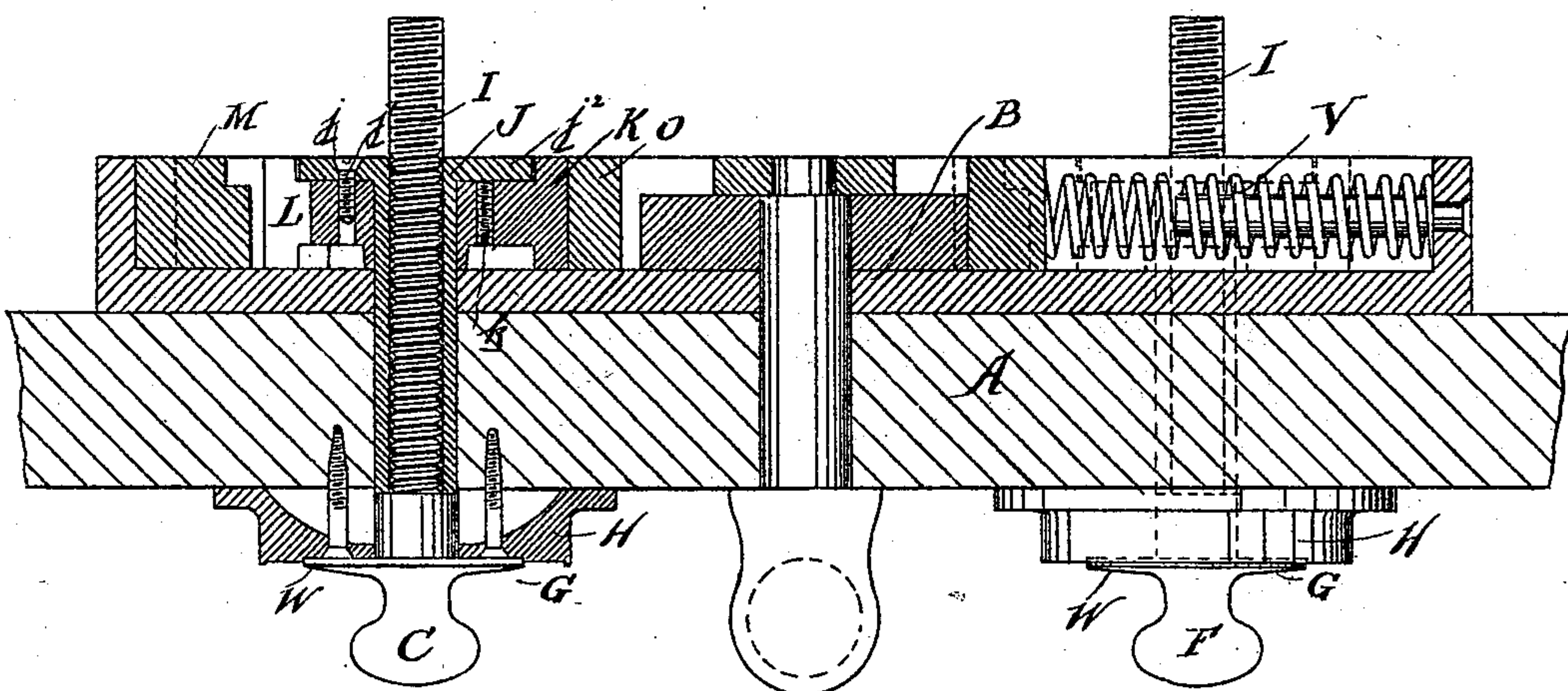


Fig. 2.

Witnesses:

Alf. Walter
Jos. L. Carmel.

Inventors:

Felix Meloche, Jr.
Clovis Meloche.

By: J. Emile Vanier.

Attorney

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2 Sheets—Sheet 2.

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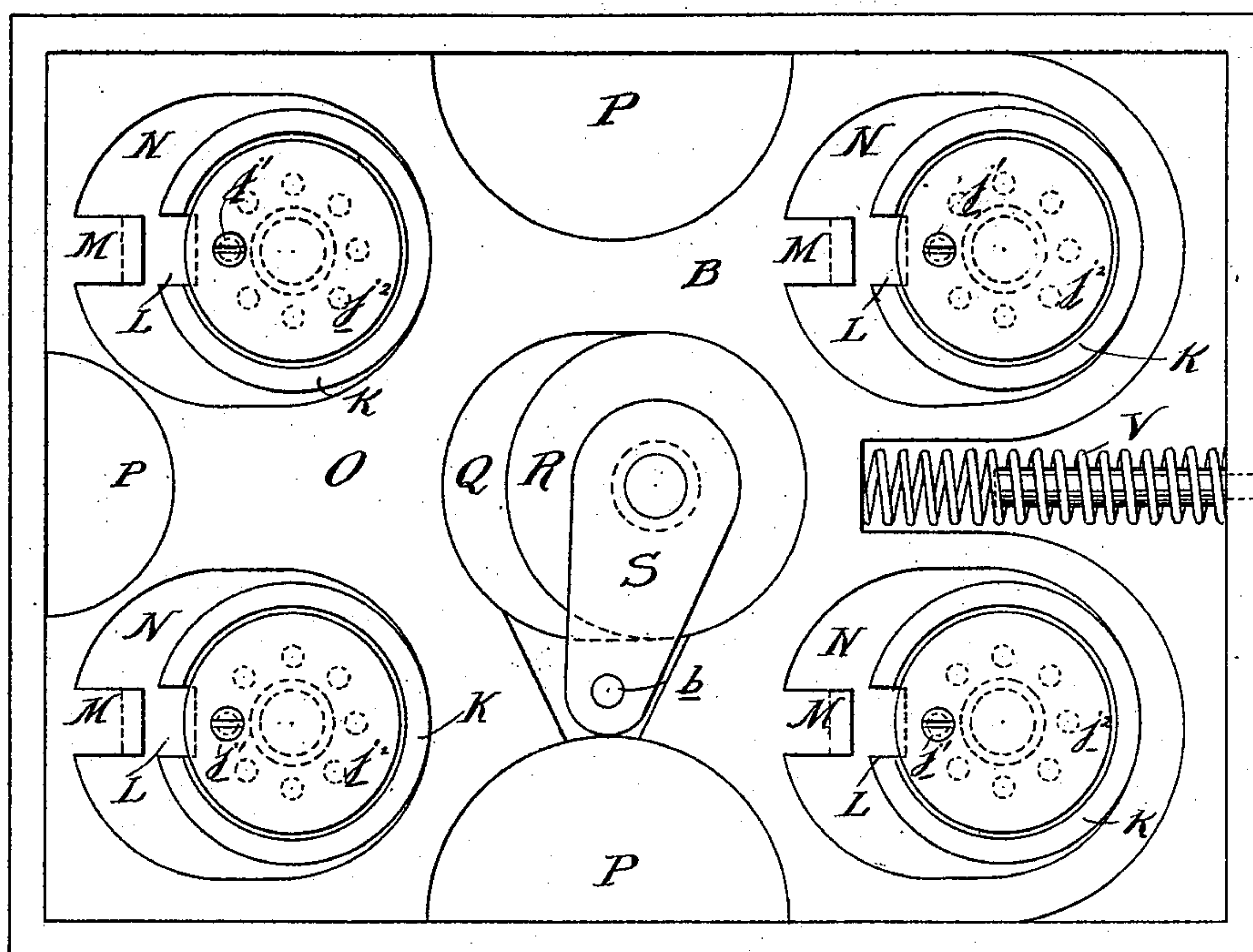


Fig. 3.

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UNITED STATES PATENT OFFICE.

FELIX MELOCHE, JR., AND CLOVIS MELOCHE, OF MONTREAL, CANADA.

COMBINATION-LOCK.

SPECIFICATION forming part of Letters Patent No. 516,685, dated March 20, 1894.

Application filed June 2, 1893. Serial No. 476,355. (No model.)

To all whom it may concern:

Be it known that we, FELIX MELOCHE, Jr., and CLOVIS MELOCHE, subjects of the Queen of Great Britain, residing at the city of Montreal, in the district of Montreal and Province of Quebec, Canada, have invented certain new and useful Improvements in Combination-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 appertains to make and use the same.

Our invention has reference to a combination lock, operated by four knobs, instead of by one, as in the usual practice now; however each knob is set for one number, as shall be shown hereinafter. Its object being to provide a combination lock which can be applied to safes, vaults or to any other kind of doors for which combination locks are used.

Referring to the drawings similar letters and figures refer to similar parts throughout the several views.

Figure 1 is a front view as seen when attached to a door; Fig. 2. a section line X X of Fig. 1 and Fig. 3. is a view of the lock when the back of the same is removed.

On the drawings A is a door and B the combination lock having the four knobs C, D, E, and F, provided with the series of numbers G only up to 4 on the drawings and turning on the circular pieces H also provided with a series of numbers as shown (up to 10 on the drawings) and secured to the door A in any suitable manner. The stems I of the knobs C, D, E, and F are threaded and screwed into the flange tubes J, each flange j^2 of the latter being provided with a counter-sunk hole j' through which is screwed the small screw j' into the circular disks K, made as shown on the drawings and having the slots L, into which the projections M, are made to go, when it is desired to open the lock; moreover these disks K are provided with as many threaded holes k as there are numbers on the circular pieces H.

O is a flat piece to which are attached in any suitable manner the bolts which run into the door frame for the purpose of locking. In this description we will call the piece O the bolt. The bolt O has four oval openings N cut through it; into these four openings N

turn the circular disks K. The projections M form part of the bolt O and are made to go into the slots L, as mentioned above, when the combinations are open. The pieces P and the oval opening Q are also cut out of the bolt O.

T is a handle which serves to operate the crank S; the handle T has a shaft that runs through the disk R which is provided with the crank S; the part of the shaft of the handle T which passes through the disk R is made square and adapted in such a manner that when the handle T is turned, the disk R and the crank S will turn with it. The far end of the crank S works into a recess in the bolt O at s so that when the crank S is made to turn it will make the bolt O slide back and forth. The disk R and the crank S turn into the oval opening Q.

V is a spring fitted in for the purpose of keeping the bolt O in the position as when locked as in ordinary spring locks. Each hole k corresponds to a number on the circular piece H so that, for instance, by screwing the screw j' into the hole k of the disk K corresponding to number 4 of the circular piece H, and by fitting the knob C into the flange tube J so as to make the number 2 of the rim W the indicator, the lock would be operated in the following manner. Turn the knob C so as to bring the number 2 of the rim W opposite the number 4 of the circular piece H, the slot L will then be directly opposite the projection M and leave the way open for it. The other three combinations must be operated in a similar manner. When the slots L of all the four disks K are brought directly opposite the corresponding projections M, turn the handle T in the proper direction, the disk R and the crank S will also turn with the handle T, and as there is then nothing in the way to prevent the projections M from entering the slots L, the bolt O will slide back and the lock is thus opened. Of course each of the four combinations can be arranged differently from the other three.

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

A combination lock B having four knobs C, D, E, and F, provided each with a rim W having thereon indicating numbers G, threaded

stems I, circular pieces H having also a series
of numbers, flanged tubes J, having the small
countersunk holes *j* through which pass the
screws *j'*, the circular disks K having the
5 threaded holes *k* corresponding to the num-
bers on the pieces H and slots L, bolt O, disk
R, crank S, lever T, projections M and spring
V, substantially as described and for the pur-
poses set forth.
10 In testimony whereof we have affixed our

cross and signature, respectively, in presence
of two witnesses.

^{his}
FELIX × MELOCHE, JR.
^{mark}
CLOVIS MELOCHE.

Witnesses:

J. EMILE VANIER,
J. M. T. LAMBERT.