

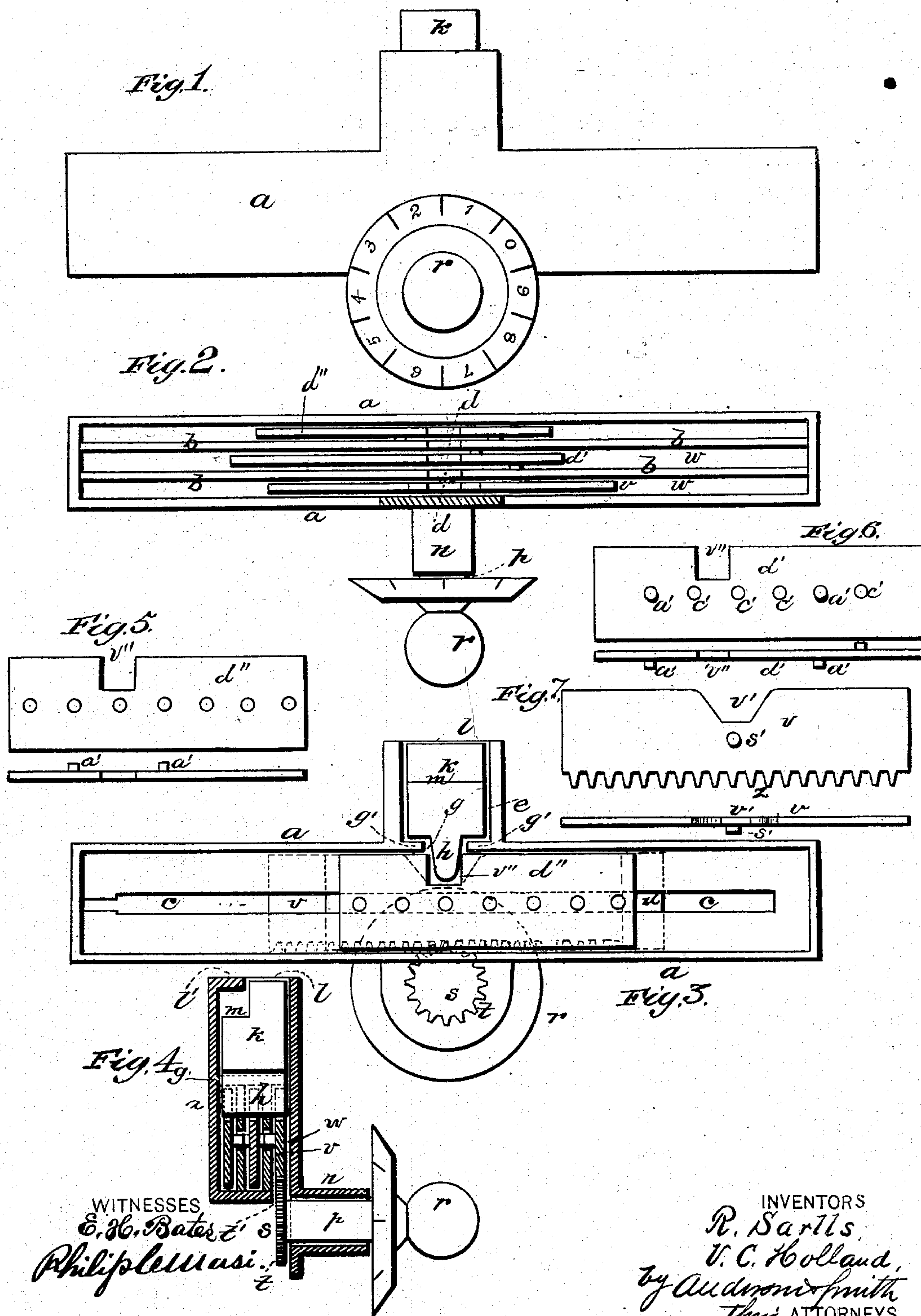
(Model.)

R. SARLLS & V. C. HOLLAND.

PERMUTATION LOCK.

No. 276,477.

Patented Apr. 24, 1883.



UNITED STATES PATENT OFFICE.

RUTUS SARLLS AND VIRGIL C. HOLLAND, OF GAINESVILLE, TEXAS.

PERMUTATION-LOCK.

SPECIFICATION forming part of Letters Patent No. 276,477, dated April 24, 1883.

Application filed April 8, 1882. Renewed February 13, 1883. (Model.)

To all whom it may concern:

Be it known that we, RUTUS SARLLS and VIRGIL C. HOLLAND, citizens of the United States, and residents of Gainesville, in the county of Cooke and State of Texas, have invented a new and valuable Improvement in Locks; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a front view of our lock. Fig. 2 is a plan view. Fig. 3 is a rear view. Fig. 4 is a cross-sectional view of the same; and Figs. 5, 6, and 7 are views of the slides detached from the lock.

This invention has relation to combination-locks; and it consists in the construction and novel arrangement of the elongated case, its longitudinally slotted and notched partitions, the boltway over the partitions, reciprocating notched and perforated slides, and adjustable pins or studs engaging the perforations and projecting into the slots of the partitions, the rack-slide, drop-bolt, and graduated knob carrying the pinion, all as hereinafter set forth.

In the accompanying drawings, the letter *a* designates an elongated case having parallel front and rear walls, and between said walls parallel partitions *b*, which are formed with longitudinal slots *c*, open at one end, and with the aligned notches *d* in the middle portions of their upper edges. Over the notched portions of the partitions the case is provided with an offset-passage or boltway, *e*, the base of which is transversely slotted at *g*, over the notches *d* of the partitions, for the passage of the transverse tooth or projection *h*, which extends from the lower end of the bolt *k*. The ledges *g'* on each side of the slot *g* serve as stops to prevent the bolt from dropping too far. Through the upper end of the boltway is made a slot, *l*, for the passage of the locking end of the bolt, and a ledge or stop, *l'*, engaging a shoulder, *m*, of the bolt, limits its upward movement, so that the bolt is always in position and ready for operation. The bolt is retracted by gravity usually; but in some constructions it may be advisable to arrange

a spring within the boltway to retract the bolt. Transversely projecting from the lower and front portion of the case, at about its middle and below its bottom, is a bearing, *n*, for the spindle *p* of the graduated knob *r*, by means of which the lock is operated. To the end of the spindle is fastened, usually by means of a screw, the pinion *s*, which is formed with a square bearing engaging the end of the spindle, so that it cannot turn when secured thereto. The radial marks of graduation on the flange of the knob correspond with the teeth *t* of the pinion in position and number. The upper margin of the pinion extends through a slot, *u*, in the bottom of the case and engages a slide, *v*, in the first ward or slideway, *w*, of the lock, said slide having a rack, *z*, in its lower edge, as shown in the drawings. In the upper edge of the rack-slide, at its middle part, is formed a beveled or V-form notch, *v'*, and from the side of the slide projects a stud, *s'*, below said notch and entering the slot *c* of the first partition, *b*. In the next ward *w* of the lock is located an adjustable slide, *d'*, which is formed with a notch, *v''*, in its upper edge, and is provided with a series of perforations or pin-seats, *e'*, in which are placed the studs or pins *a'*, which project on each side into the slots of the partitions, as shown in the drawings, the projecting ends of the pins in the slot of the first partition being arranged one on each side of the center stud, *s'*, of the rack-slide. In the next ward *w* of the lock is placed a similar perforated slide, *d''*, having in its upper edge a notch, *v'''*, and provided with adjustable pins *a'*, extending into the slot of the adjacent partition to engage the studs of the second slide. The pins *a'* are removable, and the combination may be changed by changing the location of those pins in the perforations in the slides *d'* *d''*. When the notches of the slides and partitions are in line the bottom projection of the bolt enters them as the bolt drops out of engagement with the keeper in the unlocking movement. In order to project the bolt the knob is turned, and the beveled notch of the first slide raises the bolt into engagement with the keeper. The unlocking is effected on a combination of three numbers, according to the position of the pins, the knob being turned first in one direction to bring the notch of the

last slide into position, then in the opposite direction to align the notch of the intermediate slide, and finally in the direction in which it was first moved to bring the rack-slide into line, allowing the bolt to drop.

This combination-lock is simple and strong in its construction, and is designed for furniture, being especially adapted to the drawers of bureaus and other cases.

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

A combination-lock consisting of the elongated case *a*, having the partitions *b*, provided

with the elongated slots *c*, open at one end, 15 boltway *e*, and bearing *n*, the perforated and notched slides *d'* *d''*, adjustable pins *a'*, rack-slide *v*, graduated knob *r*, and its pinion *s*, and the bolt *k*, having the transverse projection *h*, substantially as specified. 20

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

RUTUS SARLLS.

VIRGIL C. HOLLAND.

Witnesses:

M. N. SEVIER,

I. D. TROOP.