

(No Model.)

J. L. KNIGHT.

GAME COUNTER.

No. 274,005.

Patented Mar. 13, 1883.

Fig. 1.

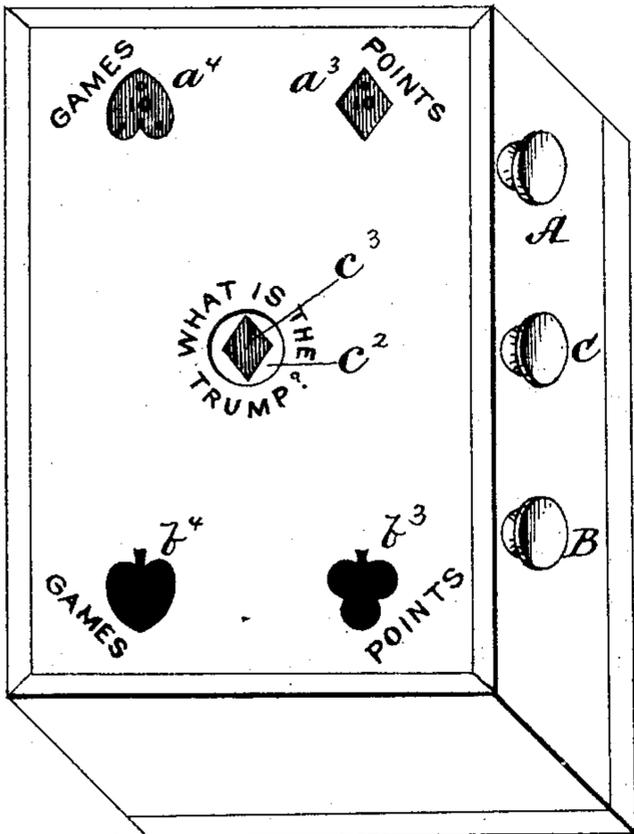


Fig. 2.

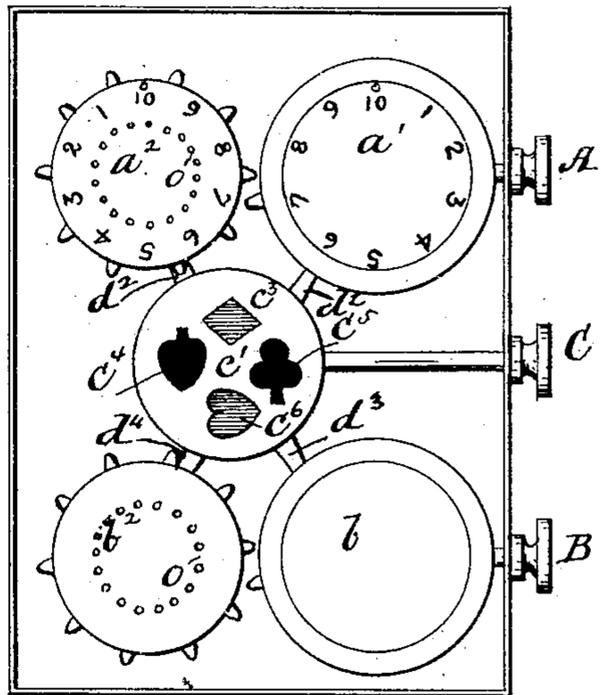


Fig. 4.

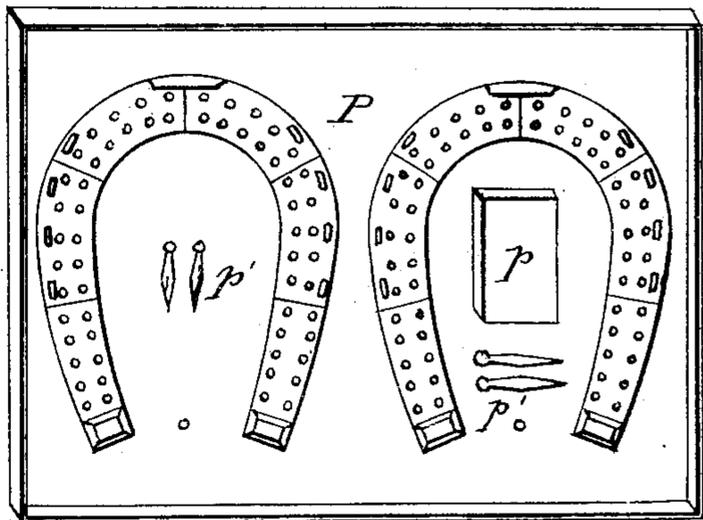
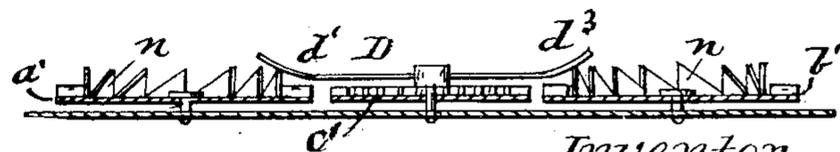
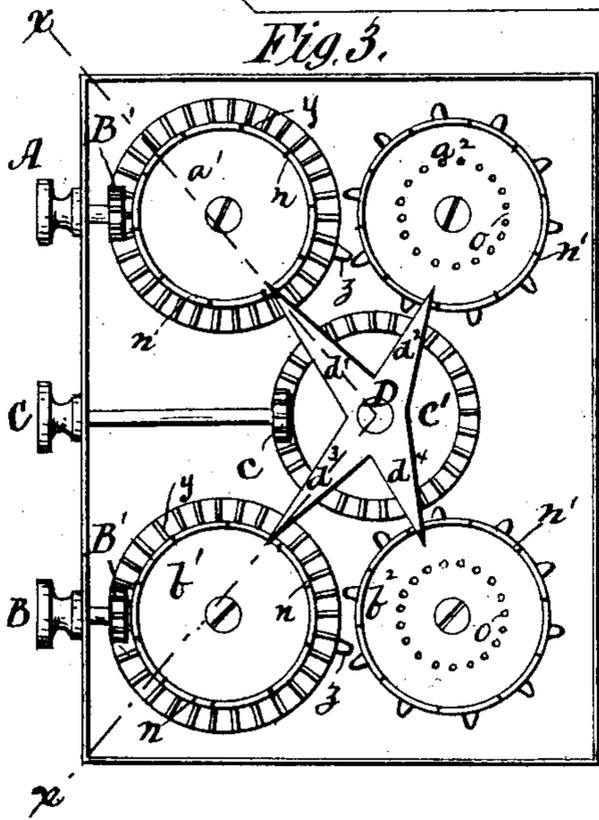


Fig. 3.



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# UNITED STATES PATENT OFFICE.

J. LEE KNIGHT, OF TOPEKA, KANSAS.

## GAME-COUNTER.

SPECIFICATION forming part of Letters Patent No. 274,005, dated March 13, 1883.

Application filed January 28, 1882. (No model.)

To all whom it may concern:

Be it known that I, J. LEE KNIGHT, a citizen of the United States, residing at Topeka, in the county of Shawnee and State of Kansas, have invented certain new and useful Improvements in Game-Counters; and I 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention, which is a combined game-counter and card-case, consists essentially of a card-case made of any suitable material, and, in addition to having room therein for a deck of cards, containing mechanism for registering the points and games scored by opposing players or sides, and by the same motion that performs the registration striking a bell or reed once for each point registered and twice for each game; also, a dial on which the trump is registered at the beginning of each hand dealt; and, also, in the lid or bottom of the case a horseshoe-shaped cribbage-board, with pins and pocket for pins, all arranged substantially as herein shown and described.

In the drawings, Figure 1 is a perspective view of my invention. Fig. 2 is a plan view with the lid removed. Fig. 3 is an inverted plan view with the button removed. Fig. 4 is a perspective of bottom of device. Fig. 5 shows a vertical section on line  $x x$ , Fig. 3.

Fig. 1 shows the operating-knobs A B C, the openings  $a^3 a^4$  and  $b^3 b^4$ , conforming to the shape of the four suits of cards—viz.,  $a^3$ , diamonds;  $a^4$ , hearts;  $b^3$ , clubs;  $b^4$ , spades. Through each of these openings are seen in succession, as the dials are turned, the several numerals,  $1^0 2^0 3^0 4^0 5^0 6^0 7^0 8^0 9^0$ . The circular opening  $c^2$ , near the center, is also shown in Fig. 1, and through this opening is seen, as desired, a single spot of the trump-suit, being either  $c^3$ , diamonds, as in Fig. 1, or by turning the dial  $c^4$ , spades,  $c^5$ , clubs,  $c^6$ , hearts, only one of the suit being seen at a time, and that the trump-suit.

Fig. 2 shows the upper side of the dials  $a'$

$a^2$  (and their duplicates  $b' b^2$ ) and the trump-dial  $c'$ . It is to be understood that the upper side of the dials  $a' a^2$ , as shown in Fig. 2, will be red, and those of  $b' b^2$  black, while that of  $c'$  will be white, with the four suits  $c^3 c^4 c^5 c^6$  shown thereon in their proper colors—viz., red and black. The dials  $a' a^2 b' b^2$  each have the several figures from  $1^0$ , which I call "zero," up to 9, inclusive. As shown in Fig. 2,  $a^3$  and  $b^2$  have also a circle of small holes,  $o$ , in which a pin is inserted to set them to zero at the beginning of a game.

Fig. 3 shows the under side of the dials, and generally the relation of the several parts to each other, with the details of each and their several functions.

The dials  $a' b'$  have gear-teeth in which the teeth of the pinions B' mesh and cause the dials to revolve by turning the knobs A B. These dials also have each a single spur-cog,  $z$ , or lug projecting beyond the general circumference. They also have vertical or crown-ratchet-shaped cogs  $n n$ , as shown in Fig. 5, extending all round, just inside the cogs  $y y$ . The dials  $a^2 b^2$  have each ten crown-ratchet cogs,  $n' n'$ , as shown in Fig. 5. The dial  $c'$  has holes or cogs (same as gear-teeth in  $a' b'$ ) in which the leaves of the pinion  $c$  mesh to turn the dial. All the dials are hung to the same supporting-plane,  $a'$  and  $b'$ , by movable screws, to allow them to be changed for the purpose explained hereinafter. The dial  $c'$  revolves on a stud on which the reed D is firmly fixed, or to which a bell may be fixed to be struck by hammer, as desired. The reed D has the four projecting points  $d' d^2 d^3 d^4$ , and is to be made of highly-tempered steel or brass, very thin, but wide enough to prevent lateral vibration or springing.

In Fig. 5 I show two vertical diagonal sections of the mechanism on line  $x x$ , Fig. 3. In Fig. 5 the form of the ratchet-cogs  $n$  and the manner in which they operate the tongue D are clearly shown. In the upper view the reed D is shown in place with its projecting points  $d^3 d^2$  extending over between the ratchet-cogs, as it is when at rest, while in the lower view the points of the reed are bent up, as they are in passing over the ratchet-cogs.

Having more fully described the several parts of my invention, I will explain their functions.

A hand of cards is dealt, and if the game is one having an "expedited" (meaning more valuable to the holder) suit, called "trumps," the dial  $c'$  is turned by means of the knob  $C$  until the trump-suit is shown at the circular opening  $c^2$ , thus registering the trump. The dials being at zero—*i. e.*, showing  $1_0^0$  at the openings, the hand is played, and the player or side counting on red makes one or two or more points. Turn the knob  $A$ , the dial  $a'$  revolves, the zero-section passes under cover, and the figure 1 appears at the opening  $a^3$ , (diamonds.) At the same time one of the ratchet-cogs  $n$ , passing under the point  $d'$  of the reed  $D$ , springs it down out of its normal plane until the dial has turned far enough to allow it to spring back in the open space between the ratchet-cogs, its vibration giving a distinct clear note, loud enough for every player to hear it. Turning the knob  $A$  still farther, if more than one point has been made, the dial revolves, the reed passes down below another ratchet-cog,  $n'$ , and springs back after it passes the point of the cog, and again by the sound of its vibration notifies the players that another point has been registered. Each ratchet-cog represents one space between the numbers on the face of the dial, so that the note of the reed as it passes over the several cogs is synonymous with the numerical registration, as shown through the opening  $a^3$ , and there can be no cheating in the counts. As the several points are registered the dial  $a$  continues to revolve until it has made nine-tenths of a revolution. This will bring the spur-cog  $z$  round against the second spur-cog of the dial  $a^2$ . Now, if the dial  $a'$  be caused to move forward one-tenth of a revolution, it will carry with it the dial  $a^2$  to the extent of one-tenth of a revolution, and then the lug  $z$  passes out of mesh and will not again affect the dial  $a^2$  until  $a'$  has completed nine-tenths of its second revolution, when it will again come into mesh and turn the game-dial  $a^2$  another one-tenth of a revolution. The game-dial  $a^2$  was at zero; but it moves round one-tenth of a revolution to each full revolution of  $a'$ , and as  $a^2$  has the same series of ratchet-cogs  $a a'$ , the point  $d^2$  of the reed  $D$  strikes one for each ratchet-cog it passes over, (or under,) and while the reed is passing the cog the section of the face of the dial changes at the opening, and instead of zero ( $1_0^0$ ) we have consecutively 1, 2, 3, &c. This entire movement of the dial  $a^2$  is secondary to the source of power, being derived from the primary movement of disk  $a'$  through the lug or spur-cog  $z$ , and as both dials, being geared together during the one-tenth of a revolution, turn at the same time, the two points of the tongue  $d'$  and  $d^2$  pass over ratchet-cogs, producing a double note at the end of the game. It may be supposed that both reeds

striking at once would make but a single note, yet it would scarcely be possible to secure so exact an adjustment as to produce a single note from two distinct reeds, were such a result desirable or necessary. Hence I say "a double note at the end of each game."

It will also be observed that by the arrangement of the tongue to one side of the center of the box the reeds or arms leading to the game-dials are shorter than those leading to the point-dials, and consequently the number of vibrations will be different in the tones given by the game and point strokes, and the pitch of the tones may be varied, if desired, by changing length of reeds, or filing them, or in any other well-known manner.

If the dials  $a' b'$  have but five or seven ratchet-teeth, instead of ten, and a like series of numbers, the device might be readily adapted to games consisting of five or seven points by substituting extra dials with these numbers for the dials having ten ratchet-teeth, thus rendering the device adjustable to any number of points.

It is understood that the dials  $a' b'$  are to be set to zero by means of their operating-knobs, while the dials  $a^2 b^2$  may be set to zero by means of pins inserted in the holes  $o$ .

The use of the cribbage-board  $P$ , with its holes, pins, &c., is obvious. Within one of the horseshoe-sections I place a pocket or case,  $p$ , to receive the pins or pegs  $p'$ .

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

1. In a game-counter, the combination, substantially as hereinbefore described, of the point-registering disk  $a'$ , having a dial on its face, and having on its under face the cogs  $y$  and the inclined points  $n$ , projected outward at right angles thereto, the game-registering disk  $a^2$ , having its periphery suitably geared with the periphery of disk  $a'$ , and having on its upper side a dial and on its lower side a series of inclined teeth,  $n'$ , projected outward at right angles thereto, the flexible arm  $d$ , having one end fixed and the other end projected over and engaged by the inclined points  $n$ , the flexible arm  $d^2$ , made of a different length from the arm  $d$ , and having one end fixed and its other end projected over and engaged by the inclined points  $n'$  on disk  $a^2$ , and suitable operating devices, as and for the purposes set forth.

2. The improved game-counter, having the register-openings  $a^3 a^4$  at one end, the register-openings  $b^3 b^4$  at its opposite end, and the trump-opening  $c^2$  at its middle, the point-registering disks  $a' b'$ , provided with dials on their upper faces, and placed below the point-register openings  $a^3 b^3$ , and having on their under faces the rim-gears  $y y$  and the inclined points  $n$ , the game-registering disks  $a^2 b^2$ , arranged below the game-register openings  $a^4 b^4$ , and having the points  $n' n'$  projected from their

under faces and at right angles thereto, the  
trump-disk *c*, below the trump-opening *c*<sup>2</sup>, and  
having on its under face a rim-gear, the four-  
armed reed or sounding-plate *D*, fixed on the  
5 shaft of the trump-disk, and having its points  
projected over and engaged by the inclined  
points *n n'* on the registering-disks, and suit-  
able mechanism whereby the several disks

may be revolved, substantially as and for the  
purposes set forth.

In testimony whereof I affix my signature in  
presence of two witnesses.

J. LEE KNIGHT.

Witnesses:

R. S. BLOYA,  
BRADFORD MILLER.